

CS 1026B: Computer Science Fundamentals I
In-person Sections (001, 002, 003)
Winter 2023
Course Outline

1. Course Information

Lecture Schedule

| Section | Day and Time | Room |
|--|---|--------|
| Section 001 (LEC) Prof. Abdelkareem Jaradat | Tuesdays 9:30am to 11:30am Thursdays 9:30am to 10:30am | WSC-55 |
| Section 002 (LEC) Prof. Caroline Strickland | Tuesdays 12:30pm – 2:30pm Thursdays 12:30pm – 1:30pm | TC-141 |
| Section 003 (LEC) Prof. Abdelkareem Jaradat | Tuesdays 4:30pm to 6:30pm Thursdays 4:30pm to 5:30pm | MC-110 |

*Please note that this outline is for Sections 001, 002, and 003.
If you are in the online section, please refer to the course outline on that OWL site.*

Lab Schedule

This term, there are around 20 lab sections. Check Western's Academic Timetable 2022/2023 to see the times and locations for these sections.

List of Prerequisites

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

2. Instructors Information

| Instructors | Email | Office | Office Hours |
|---------------------------|--------------------|--------|---|
| Prof. Caroline Strickland | cstrick4 AT uwo.ca | MC 23 | Thursdays 2:00pm to 3:00pm |
| Prof. Abdelkareem Jaradat | ajarada3 AT uwo.ca | MC 24 | Tuesdays 7:00pm to 8:00pm Thursdays 6:00pm to 7:00pm |

* Abdelkareem Jaradat will act as the course's coordinator this semester.

Email Communication

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, they will forward your email to your course professor. Your course professor will not answer material-related emails without getting them forwarded by TAs.
 - b. If the question is about the course logistics or a personal issue, you can directly email your course professor (given that you have already tried the outline, announcements, and forums.
 - c. As our communication is partially done electronically, there will be lots of incoming emails and therefore you must include the exact course code (**CS1026B**) 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.***
 - d. Any professor in this course checks their emails on school days and will typically reply within 72 hours. Don't expect any response on weekends or after 7:00 pm on a typical weekday.

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 introduces 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.

Lectures 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

Classes begin: Jan 9, 2023

Spring Reading Week: Feb 18 – Feb 26, 2023 (no classes)

Classes end: April 8, 2023

Final Exam period: April 2023

Lab Schedule

| Lab # | Week |
|------------------------|------------------|
| Lab 1 | Jan 24-26 |
| Lab 2 | Jan 31 - Feb 2nd |
| Lab 3 | Feb 7-9 |
| Lab 4 | Feb 14-16 |
| Reading Week (No Labs) | |
| Lab 5 | Feb 28 – Mar 2 |
| Lab 6 | Mar 7-9 |
| Lab 7 | Mar 14-16 |
| Lab 8 | Mar 21-23 |
| Lab 9 | Mar 28-30 |
| Lab 10 | Apr 4-6 |

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 news and updates. This is the primary 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 1026B 001 FW22**". All in-person 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: computer that can run Python 9.X or higher and **any of** the following editors:

- VScode: <https://code.visualstudio.com/download>
- Spyder: <https://www.spyder-ide.org/>
- CoLAB: <https://colab.research.google.com/>
- PyCharm: <https://www.jetbrains.com/pycharm-edu/>

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 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
3. Subscribe

| Instructors | section | ZyBook code |
|----------------------------------|---------|-----------------------------------|
| <i>Prof. Ahmed Ibrahim</i> | 01 | UWOCOMPSCI1026ABWinter2023 |
| <i>Prof. Caroline Strickland</i> | 02 | |
| <i>Prof. Abdelkareem Jaradat</i> | 003 | |

5. Methods of Evaluation

The overall course grade will be calculated as listed below:

| | | |
|--------------------|-----|--|
| Assignments (4) | 30% | (4%, 7%, 9%, and 10%) |
| Class contribution | 7% | (Class attendance and discussions as explained by your instructor) |
| Labs (10) | 8% | (1% each; lowest 2 are dropped) |
| Three quizzes | 20% | (More Information is given below) |
| Final Exam | 35% | (In-person) |

Assignments

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

All assignments are due via *Gradescope* at 11:55 PM EST on the due date unless stated otherwise. If an assignment must be cancelled by the instructors for any reason, the remaining assignments will be re-weighted to add up to 30%.

Late Policy on Assignments

If you submit an assignment late, there will be a late penalty of 10% per day. If you have a valid reason for a late submission, please contact your academic counsellor.

Assignments can be submitted up to 3 days late. Assignments will not be accepted more than 3 days after the due date and will be graded as 0.

Re-submissions are allowed and the latest submission is considered the final submission. 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 your local machine 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 | February 8 |
| Assignment 2 | March 8 |
| Assignment 3 | March 22 |
| Assignment 4 | April 5 |

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 January 24-26
- **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 complete the lab work during your scheduled lab time and show the TA the finished work and sign their attendance sheet.
- 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, 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 the weight of those additional missed labs will be shifted to your final exam.
- 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.
- 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.

Quizzes

- Each quiz will occur during the scheduled lecture, as announced by your instructor.
- In cases of emergency when a quiz must be missed, students can contact their academic counselling office to retrieve accommodation for an absence. In this case, the weight of the quiz will be carried over to the final exam.

Tentative Quiz Dates (the exact lecture in which the quiz will take place is to be specified by your individual professor):

| | |
|----------|---|
| Quiz #1 | Week 3 (January 23 rd -27 th) |
| Quiz # 2 | Week 6 (February 13 th -17 th) |
| Quiz # 3 | Week 10 (March 13 th -17 th) |

Final Exam

The final exam will be scheduled by the University. The exam period is from April 13-30, 2023, and the exact date, time, and location for our exam will likely be announced in March. The final exam is cumulative and is 3 hours in length.

Grade Requirements

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

- at least 50% on the course exam component (the final exam and the quizzes);
- at least 50% weighted average on the remaining coursework.

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 55% on the course exam component (the final exam and the quizzes);
- at least 66% weighted average on the remaining coursework.

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, if you required additional time with assignments 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.

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 can 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%20Accommodation_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,

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 sections of 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.

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/>.

Good Luck!