COMPSCI 2120A/9642A/DIGIHUM 2220A Course Outline
Fall 2025

1. Course Information

Course Description – COMPSCI 2120A/9642A/DIGIHUM 2220A
Essential information processing and coding skills for students. Includes core concepts of algorithms and data structures; creating programs and scripts to address problems that arise in applied research; examples of data sets and analyses drawn from a variety of disciplines. No previous programming background assumed.

Antirequisites
Computer Science 1025A/B or Computer Science 1026A/B, Data Science 1200A/B, Engineering Science 1036A/B, Digital Humanities 2220A/B.

List of Prerequisites
None.

2. Instructor and Contact Information

Instructors	Email	Office	Office Hours
Duff Jones	djone5@uwo.ca		TBD
TA	TBD	TBD	TBD

Email Policy
Occasionally, email messages may be sent to the entire class or to individual students. Email will be sent to your UWO email address as assigned to you by Western Technology Services (WTS). **It is your responsibility to read this email on a frequent and regular basis.**

You should note that email at the university and through other providers have quotas or limits on the amount of space that is dedicated to each account. Unchecked email may accumulate beyond those limits, and you may be unable to retrieve important messages from the university. Losing email is not an acceptable excuse for not knowing about the information that was sent.

Please consider the following before emailing your instructor:

Topics Specific to You
You must use your Western (*@uwo.ca*) email address when contacting the instructor and teaching assistants. **Please include the course code in the subject line of the email** to avoid the possibility of your email being overlooked (e.g., *DIGIHUM 2220 – Absence*).

An example of a topic specific to you would be informing your instructor of an absence. **You should not email the instructor, nor the TAs, to ask questions about course content (or assignments) that would be of interest to other students**—that's what OWL Discussions are for. For individual help with an assignment, please attend office hours or make an appointment.

NOTE: In the subject line, please include your course code (e.g., 2120). Include a title or topic description of the contents of the email in the subject line and send e-mails from your @uwo.ca e-mail account. The instructor will be unable to respond to questions about your personal grades, assignment, etc. if they are not sent via a known @uwo.ca e-mail account for security and privacy reasons.

Topics Impacting Everyone
Please use OWL Discussions. Any question you have about course content or assignments has almost certainly come up for your classmates. By using the Discussions section of OWL instead of email, everyone can benefit from the answer.

When you post a question, please provide an informative title. For example, if you are asking a question about Python naming conventions, then the post title should be something like, "Python Naming Conventions." If you can be more specific, that's even better (e.g., "Python's Use of Underscores in Variable Names"). That way, anyone who has a question about Python naming conventions knows that their question may have already been answered. Try to keep threads to one topic; it makes finding a previous answer a lot easier.

If you know an answer to a classmate's question, please go ahead and answer it. If you see a mistake, offer a fix. Computer science and programming, like other areas of science, are collaborative, and Discussions allow for collaboration with your classmates. It should go without saying, but **OWL Discussions aren't Reddit**, so please stick to the subject matter of the course and be courteous to each other.

Discussions will be arranged into a variety of topics, so please try to post to the right place. If it could go in two places, flip a coin to make the choice. Or, better yet, write a small program to flip a coin for you.

Please do not post your assignment code to the Discussions. This may be deemed an academic offence. Questions requiring the instructor or TA to see your code should be asked during office hours.

Office Hours
Office hour locations and times are listed in the table above. Office hours can be used to ask assignment questions, but we encourage students to drop by to ask questions related to course materials as well. There often is not enough time during lecture to answer more complex questions; office hours are the best time for that.

3. Course Syllabus, Schedule, Delivery Mode

Course Topics

This course will address as many of the following topics as time will allow:

- Basic arithmetic operations.
- Variables and their assignment.
- Functions.
- Conditionals.
- Iteration and recursion.
- Strings and string manipulation.
- Basic data structures (lists, dictionaries, and tuples).
- File input and output.
- Classes and objects.

Learning Outcomes

Upon completion of the course, students will

- be able to write scripts and programs using the Python programming language;
- know how to debug scripts and programs written in Python;
- understand how to implement and manipulate basic data structures like lists, tuples and dictionaries;
- understand basic algorithms (e.g., searching, counting) and how to apply them to a variety of problems;
- be comfortable using Python to read from, and write to, files;
- understand the basics of the object-oriented programming paradigm; and
- be familiar with several popular Python libraries.

Please refer to "COMPSCI 2120A/9642A/DIGIHUM 2220A: Suggested Study Schedule – Fall 2025" (available on OWL) for a week-by-week breakdown of the topics to be covered and the required readings for each week.

Course Schedule and Delivery

Lecture Section	Instructor	Day and Time	Location
001	Duff Jones	Tuesday: 10:30 AM – 12:30 PM Thursday: 1:30 PM – 2:30 PM	

All classes are delivered in person at the times listed above.

Tutorial Section	Teaching Assistant	Day and Time	Location
002	TBD	Thursday: 10:30 AM – 11:30 AM	
003	TBD	Thursday: 3:30 PM – 4:30 PM	
004	TBD	Wednesday: 10:30 AM – 11:30 AM	

You are expected to attend the tutorial on your schedule to avoid any issues with space in the classroom.

4. Course Materials

Required Textbook

- Downey, Allen B. *Think Python: How to Think Like a Computer Scientist, 3rd Edition*. O'Reilly: 2024.
    - This textbook is freely available online. The online version allows you to run the code directly in your browser.

Course Web Page

All course material will be posted to OWL: https://westernu.brightspace.com/.

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

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

Technical Requirements

You must have access to a computer onto which you can install the course software listed below, as well as being able to access Gradescope and OWL.

Anaconda Individual Edition

This software manages a lot of the more complicated aspects of Python, allowing you to focus on learning how to program rather than on how to set up a programming environment. You can download it here: https://www.anaconda.com/products/individual.

Visual Studio (VS) Code

We will be using this as our integrated development environment (IDE). An IDE makes life easier for us when programming, as it will give us useful features like syntax highlighting, code autocompletion, debugging, language support and more. (It's okay if that all sounds meaningless to you right now—it will make more sense as we delve into the course.) You can download it here.

Once you have installed VS Code, you will need to install the Python for Visual Studio Code extension. There will be tutorials available on OWL describing how to get everything set up, and you are welcome to come to office hours to get assistance.

Alternatively, if you are familiar with IDEs and would prefer to use a Jet Brains product, you are welcome to use PyCharm. As a student, if you navigate to this page, you can get a lot of useful development tools for use within the Jet Brains ecosystem.

If you choose to use PyCharm, I assume that you are willing to figure out how it works on your own without classroom tutorials. If you are new to programming, VS Code is probably a better place to start.

5. Methods of Evaluation

Grading Scheme and Assessment Dates

The overall course grade will be calculated as listed below:

Assignments (4)	36%
Tutorial Assignments (11)	9%
Midterm Test	20%
Final Exam	35%

Lectures

This course is delivered synchronously. Slides will be provided prior to the lectures, but slides will not contain all course material. You are expected to attend lectures and take your own notes. If absent (e.g., due to illness), you are expected to get notes from a classmate. Office hours provide an opportunity to ask questions related to missed material, but students should not expect the lecture to be re-delivered during office hours.

Tutorials

Tutorials are based on the previous week's lecture material. The TA will review the material during the weekly tutorial session, so you are strongly encouraged to attend and ask questions. **Each tutorial will have an assignment associated with it.** These assignments will typically involve answering a few questions and writing some code.

You are welcome (and encouraged) to work with your classmates during tutorials. You should make sure that you understand the material, however, as the purpose of the tutorials is to help you with both the assignments and the exams. **You must submit each tutorial assignment via Gradescope by 11:59 PM Eastern time on the Tuesday following the tutorial session.**

As tutorial assignments are meant as the participation portion of your grade (and to ensure that you understand the material needed for success in the course), you cannot submit a tutorial assignment after it is due**. A tutorial assignment that is not submitted on time will receive a grade of zero.** There are 11 tutorial assignments in total, with each assignment being worth 1% of your final grade. **Your two lowest tutorial assignment grades will automatically be dropped so that the 11 assignments are worth 9% of your final grade.**

A missed tutorial assignment cannot be reweighted or shifted to another course component. The two lowest tutorial assignment grades will be dropped to account for the possibility of illness or compassionate considerations.

Assignments

There are four assignments worth 36% of the final course grade. You are expected to view the lecture and reading materials and to complete tutorial assignments to prepare for the assignments.

Assignment Schedule (Tentative)

Assignment	Weight	Due Date (by 11:55 PM)
1	6%	Friday, October 3, 2025.
2	8%	Friday, October 24, 2025.
3	10%	Friday, November 14, 2025.
4	12%	Friday, December 5, 2025.

The due dates of the assignments are shown in the table above. Please note that all these dates are tentative. **The due dates will be confirmed when the assignments are posted on OWL.** The dates will coincide with the class progression on relevant assignment topics. Assignments will be posted at least two weeks prior to the due date.

If for any reason the assignment schedule given above cannot be adhered to, then the assignment marks will be reweighted. The four (4) assignments are worth 36% of the overall mark for the course. If an assignment must be cancelled for any reason, the remaining assignments will be reweighted to add up to 36%.

Assignment Rules & Policies

The following rules and policies apply to all assignments:

1. **Gradescope and Automated Tests:**
    a. All assignments must be submitted via Gradescope. No assignments will be accepted via email, OWL, or any other method.
    b. A large 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 other parts of the tests may be hidden from you. You should still do your own testing locally to ensure your code works properly for all valid inputs. **It is your responsibility to ensure the tests run and pass on Gradescope to get full marks.**
    c. Students are expected to leave enough time before the due date to correct any errors indicated by the Gradescope tests. Auto-graded tests will **not** be manually regraded, but you may resubmit an unlimited number of times leading up to the due date.
    d. Any attempts to "hardcode" or otherwise "fool" the autograder will result in a zero grade on that test even if the test shows as passing on Gradescope. Teaching assistants may also remove points for failing to follow rules given in the assignment (e.g., some assignments may forbid the use of certain libraries or require that certain functional and nonfunctional requirements are met).
2. **Regrade Requests:**
    a. If you disagree with the grading of the portions of your assignment that were manually graded by a teaching assistant or have questions about how the mark was determined, you should submit a regrade request via Gradescope **within one (1) week of the assignment being returned to you.** The teaching assistant who marked your assignment will review your request and determine if any adjustment is necessary. If you feel the response to your regrade request was not sufficient, you may bring the issue to the attention of your course instructor (via email).

b. No regrade requests will be considered if they are submitted outside of Gradescope (e.g., via email), and no regrade requests will be considered after one (1) week of the assignment being returned.

c. No regrade requests will be considered for automated tests. It is your responsibility to ensure that any automated tests on Gradescope are passed before making your final submission.

3. **Academic Integrity for Assignments:**

   a. **Assignments are to be done individually, not in groups or with the aid of others** (including tutors or using code from online and other sources)**.** Submitted code will be run through a similarity-checking software. Any students with significantly high similarity will be referred to the department's integrity committee and will receive a zero grade. (The integrity committee or Dean's office may apply additional penalties.) **Do not copy or share code in any way. Do not look at or receive another student's code.**

   b. **You may *NOT* use generative AI or tools capable of generating code or comments for assignments.** Use of these tools on assignments will result in a zero grade and referral to the department's integrity committee.

   c. **You may not use code you have previously written from past courses or past terms** without written permission from the course instructor.

   d. **You may not share or otherwise publish your code online (e.g., to GitHub)** until one month after the course has completed. It is your responsibility to ensure any remote backups or version control systems used are private and not publicly accessible.

   e. **You may not write code to intentionally manipulate or interfere with the function of the Gradescope autograder.** This includes attempting to reveal test cases that are intended to be hidden, falsely altering the grade given by the autograder, manipulating due dates, or any action that would violate Gradescope's terms of use.

Assignment Backups

It is your responsibility to keep up-to-date backups of assignment files in case of system crashes or inadvertently erased files. Students must keep copies of all material submitted, as well as the actual graded assignment, to guard against the possibility of errors in recording marks. It is not safe to discard these materials until you are satisfied that your final mark for the course has been computed properly.

Late Coupons & Late Policy

It is expected that students budget enough time to properly submit their assignments via Gradescope and allow for any unforeseen technological issues. You are expected to regularly back up your assignments and submit well before any deadline.

To allow for flexibility and any unexcepted circumstances that may impact your ability to submit assignments a late coupon system is used in this course:

1. Each student will be given **six (6)** *late coupons* in total for the semester that may be used to submit an assignment one day late per coupon without penalty.
2. You can use ***at most* 3 late coupons per assignment**.
3. If you submit late and have no late coupons remaining, **a zero grade will be given on the assignment**.

4. If you submit more than three (3) days late, **a zero grade will be given on the assignment** regardless of the number of late coupons you have remaining.
5. Late coupons will **NOT** be replenished. For example, if you use three late coupons on Assignment #1, you will only have three remaining for the rest of the course.
6. Late coupons will be applied automatically when an assignment is submitted late. You are not required to inform the course instructor or TA. If you submit late, one late coupon will be used per 24-hour period.
7. Each late coupon is valid for a 24-hour period only. For example, if an assignment is due on October 3 at 11:59 PM and you submit it on October 4 at 12:00 AM (one minute past 11:59 PM), then this would require one late coupon, as would any submission between 11:59 PM on October 3 and 11:59 PM on October 4. After October 4 at 11:59 PM and up to October 5 at 11:59 PM, two late coupons would be required. After October 5 at 11:59 PM and up until October 6 at 11:59 PM, three late coupons would be required. After October 5 at 11:59 PM, no more submissions will be accepted, and a zero grade will be given on the assignment regardless of how many late coupons you have remaining.
8. **It is the student's responsibility to keep track of how many late coupons they have available throughout the semester.** An item in the OWL Gradebook will be used to track your late coupons, but **this is not updated live** and may be out of date. In case of a discrepancy, the actual number of coupons used (and not what is listed in OWL) will be used for determining any late penalty.
9. Resubmissions are allowed up to three (3) days after the due date but note **that resubmissions after the deadline will be considered late and require a late coupon**, regardless of when the initial submission was made. The date and time of your most recent resubmission will be used for determining lateness.
10. Late coupons must be used before any special circumstances are considered. This means that you need to consume all late coupons before applying for academic consideration for an assignment.
11. **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 and provide medical documentation to academic advising.
12. **Late coupons cannot be used on any course component except assignments.**

Examinations

There will be both a midterm and a final exam. The following is the tentative exam schedule (subject to change):

Exam	Weight	Date
Midterm	20%	Tuesday, October 28, 2025. 10:30 AM to 12:30 PM (During lecture time in class)
Final Exam	35%	Scheduled by the Registrar's Office during the Final Exam Period

Permissible Materials During Examinations
Both the midterm and the final exam are closed book; however, you will be allowed to bring in **one 8.5 x 11 sheet of handwritten notes**. You may write on both sides of the page. Photocopies are not permitted. Handwritten notes written on a tablet and then printed off are also not permitted. You should contact your instructor regarding any accommodations to this policy for accessibility purposes.

No electronic devices of any kind are allowed.

All exams are to be completed individually, with no assistance or contact with others. Violation of this rule, any other exam rule, or cheating of any kind will result in a zero (0) for the examination and the possibility of additional penalties as deemed appropriate by the course instructor, department, or university. These penalties may include, but are not limited to, a failing grade being entered for the course

Midterm
The midterm will be conducted in person and cover all course material, including assigned readings, tutorials, lecture slides, and materials covered in assignments **up to the end of the week prior to the midterm (i.e., Friday, October 24)**. The actual length of the midterm is 1.5 hours.
More information on the midterm's composition will be provided closer to the date it will be written.

There is no makeup midterm. If you have an approved absence from an academic advisor, the weight of the missed midterm will be placed on the final exam. If you do not have an approved absence, the midterm grade will be zero (0).

If your grade on the final exam is higher than the midterm exam, the weight of the midterm exam will be transferred to your final exam. This transfer will only happen if you write the midterm exam; missing the midterm exam without approval will result in a zero grade on the midterm exam regardless of the grade obtained on the final exam.

Any midterm absences must be documented and submitted to academic advising for your home faculty. If the consideration request is approved and covers the correct dates, the weight of your midterm will be moved to the final exam.

Final Exam
The final exam will be conducted in person and cover all course material including assigned readings, tutorials, lecture slides, and materials covered in assignments and lab homework. The final exam will be scheduled by the Registrar's Office during the Final Exam Period. You should not book any travel prior to the Registrar's Office releasing the final schedule.

When a student misses the final exam and their Academic Consideration has been granted, they will be allowed to write the Special Examination (the name given by the University to a makeup final exam). See the Academic Calendar for details (under Special Examinations), especially for those who miss multiple final exams within one examination period.

General 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://www.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.

Important note: For course elements without flexibility, the policy permits students to request one absence without proof of documentation. The midterm exam is excluded from this policy. Since sufficient flexibility is built into all other course components, all academic consideration requests will require proof of documentation from the relevant Academic Counselling department.

Use of Generative AI Tools

As the intention of this course is for you to learn how to program, Generative AI tools (e.g., ChatGPT, Copilot, Claude, Gemini) are generally **not permitted.** The use of Generative AI tools will prevent you from learning how to program.

Some **tutorials** and **in-class activities** may permit the use of Generative AI with limitations. If allowed this will be clearly stated in the tutorial document or activity as well as any limitations. Unless otherwise noted, you should assume their use is prohibited. (Ask your instructor if you are unsure.)

Any use of Generative AI that has not been approved will be considered an academic offence and referred to the department's Academic Integrity Committee.

6. Additional Statements

Religious Accommodation

When conflicts arise with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing to the course instructor and/or the Academic Advising office of their Faculty of Registration. This notice should be made as early as possible, but not later than two weeks prior to the writing of the examination (or one week prior to the writing of the test).

Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays - https://www.edi.uwo.ca

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.

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

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
Computer Science Department Policy on Scholastic Offences:
https://www.csd.uwo.ca/undergraduate/current/policies/scholastic_offenses.html

Computer Science Department Policy on Ethical Conduct:
https://www.csd.uwo.ca/undergraduate/current/policies/ethical_conduct.html

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, and wireless earbuds or headphones.

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

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

Similarity Checking Software

All assignments may be subject to similarity checking software (e.g., MOSS) to detect plagiarism.

In the Event of a Lockdown

If, for any reason (e.g., a health lockdown), this course is moved online, the midterm and final exam will 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.

Support Services

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/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.

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

Learning-skills counsellors at Learning Development and Success (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 Student Experience website to manage your academics and well-being: https://studentexperience.uwo.ca.

Additional student-run support services are offered by the USC, https://westernusc.ca/services/.