



Introduction to Computer Science

Course Information

Course Number: COSC1P02

Term/Year/Duration: Fall 2024

Course Coordinator

Tristan Navikevicius (tnavikevicius@brocku.ca)

Note: all correspondence pertaining to the course delivery, labs, etc. should go to your coordinator first. To reinforce with this, you will be given your instructors' email addresses during your first lecture.

Instructor Information

Maysara Al Jumaily, Earl Foxwell

Office hours: Al Jumaily: TBA

Foxwell: Tuesdays 4–5pm / Wednesdays 3:30–5pm

Times and Locations

Lectures: Section 1: Wednesdays/Fridays, 2–3:30pm, STH203

Section 2: Thursdays, 2–5pm, STH203

Tutorials: Wednesdays, noon–1pm, DHOWES

Labs vary by student registration; please attend the one for which you're registered

All lectures are delivered synchronously, in-person.

A Student may make or share an audio or video recording of a lecture, presentation, or lesson, only with the permission of the instructor.

Course Calendar Description

Foundations of Computer Science and computer programming in a high-level language. Topics include computer fundamentals, representation of information, problem solving and software development, programming language syntax and semantics, methods, input/output, control structures and data types.

Learning Outcomes:

- Describe the organization of a basic computer system
- Describe the representation of various types of information
- Explain the execution of the fundamental control structures
- Employ procedural abstraction, including parameters
- Understand scope and visibility in computer programs
- Use various APIs in the development of a problem solution
- Use an IDE in the development of programs
- Apply coding/documentation standards in the preparation of program solutions

Textbook

Introduction to Computer Science; D. Hughes; (2014); on the Brightspace page

Course Communications

All communication is delivered via Brightspace announcement and/or email. Students are expected to check both routinely, as anything posted to either may be deemed 'read'. This includes announcements in the event of class cancellations and inclement weather; but also postings, amendments to assessments, etc. Further requirements on assignments may also be communicated directly in lecture.

When emailing your instructor, include the name of the course in the **Subject** line. All correspondence must be from your student (Brock) email address.

Please note: your instructor is a *human being*. Emails written, 'polished', or otherwise generated by AI are incredibly unprofessional, but also might be caught by spam filters or otherwise missed. Also: trying to trick a human being into interacting with a machine because they aren't worth *your* time doesn't send a very positive sentiment.

Assessment Components

Assessment Component	Grade Weight
Labs (8)	16
Lab Exercises (8)	16
Academic Integrity Workshop	1
Midterm lab test (Oct. 21 st –25 th)	5
Midterm written test (Wed. Oct. 9 th)	10
Final lab exam	20
Final written exam	32
Total	100%

Note: the lab test is during your regularly-scheduled lab time. The written test is during your scheduled tutorial time.

Additional requirements

The final exam is an integral component of assessment; students **must** earn a 40% on the final exam in order to qualify for credit in the course.

Academic integrity is inextricable from Computer Science education; students **must** complete the Academic Integrity Workshop to qualify for a credit in the course; additionally Brightspace access and lab admittance will be gated to workshop completion. Failure to sign up for the workshop while they're available does not constitute an excuse for missing it.

Labs comprise the experiential component of the course; there is no way to fully demonstrate practical skills without attending them all. To that end, **students must attend at least 6 of the 8 labs** to qualify for credit in the course. To confirm: each of the 8 labs are worth 2% each, but missing more than 2 will mean an assigned F.

In the event of any form of penalty imposed by the Dean's office for misconduct, offenders will be ineligible for any curving, shifting, or other academic consideration (as that would countermand prescribed penalties).

Some concepts are taught only in class; missing details due to skipping lecture does not constitute grounds for regrading. It is further expected that students will follow instructions, and submit cogent and sensible works.

All solutions are to be implemented on a single computer. All exercises will be completed in BlueJ.

Late Submission Policy

Lab exercises may be shown to your lab leaders at the start of the subsequent labs, but beyond that no late submissions are accepted. There are *no* exceptions to this rule, for the sake of pacing and workload.

Note: **do not email exercises** to your instructor. They will not be accepted, and unsolicited attachments may lead to your email address becoming blocked. There will *never* be any circumstances in which an exception should be made; you will *not* receive a reply restating this policy.

If any work must be missed, prompt communication is mandatory for any accommodation to be considered. i.e. when a student knows a work or obligation may be missed, the course coordinator must be notified *immediately* upon the student learning of the issue.

See Medical Exemption Policy and the medical health certificate at the [Registrar's Website \(Forms\)](#). Your instructor will decide what, if anything, to do *after* receiving the form, subject to the same points as above. If accepted, accommodations may include alternate submission arrangements, omitting a piece of work, shifting its weight onto some other work, or assigning an alternate work.

Important dates

The most recent listing of Important Dates for all durations is at <https://brocku.ca/important-dates/all/>

First day of classes: 4 September

Last day of lectures: 3 December

Last day of exams: 19 December

Deadline for withdrawal without academic penalty: 5 November

National Truth and Reconciliation Day: 30 September

Fall break week: 14–18 October

Academic Integrity Workshop:

Integrity is an immensely important factor for higher education, scientific publication, and development. Trust is non-negotiable. To assist with this, each student must complete the Academic Integrity Workshop. Additional instructions for this will be posted on Brightspace.

Completion of the workshop is mandatory in order to qualify for a credit in the course.

Academic Policies

Academic Integrity

Statement for undergraduate courses

Academic misconduct is a serious offence. The principle of academic integrity, particularly of doing one's own work, documenting properly (including use of quotation marks, appropriate paraphrasing and referencing/citation), collaborating appropriately, and avoiding misrepresentation, is a core principle in university study. Students should consult Section VII, "Academic Misconduct", in the "Academic Regulations and University Policies" entry in the [Undergraduate Calendar](#) to view a fuller description of prohibited actions, and the procedures and penalties. Information on what constitutes academic integrity is available at [Brock University Academic Integrity Website](#).

Plagiarism software:

This course may use phrase-matching software, or additional tools and scripts to assist with detection of academic misconduct. There is **no** opt-out, nor alternative provided.

Penalties for Academic Misconduct in the Faculty of Mathematics and Science

The following are standard penalties imposed in academic misconduct cases in FMS. Please be aware that the Associate Dean, Undergraduate Programs, may assign different penalties than those listed here, depending on the details of individual cases. ***Requests for special academic consideration, such as exceptions to academic regulations, will not be considered while academic integrity cases are ongoing.***

Penalties for misconduct in course work, including mid-term tests

First offence: Zero grade on assignment, additional penalty of 100% of the weight of the assignment to be subtracted from the final grade, mandatory completion of the AZLS Academic Integrity workshop

Second offence: Zero grade on assignment, 4-month suspension

Third offence: Zero grade in course, 1-year suspension, permanent removal from major program.

Fourth offence: Permanent suspension / debarment.

Penalties for misconduct in final exams:

First offence: Zero grade in course

Second offence: Zero grade in course, 4-month suspension

Third: Zero grade in course, 1-year suspension, permanent removal from major program,

Fourth offence: Permanent suspension / debarment.

Intellectual Property Notice

All slides, presentations, handouts, tests, exams, and other course materials created by the instructor in this course are the intellectual property of the instructor. A student who publicly posts or sells an instructor's work, without the instructor's express consent, may be charged with misconduct under Brock's Academic Integrity Policy and/or Code of Conduct, and may also face adverse legal consequences for infringement of intellectual property rights.

Accommodations

The University is committed to fostering an inclusive and supportive environment for all students and will adhere to the Human Rights principles that ensure respect for dignity,

individualized accommodation, inclusion and full participation. The University provides a wide range of resources to assist students, as follows:

- a) If you require academic accommodation because of a disability or an ongoing health or mental health condition, please contact Student Accessibility Services at askSAS@brocku.ca or 905 688 5550 ext. 3240.

In the interest of removing roadblocks before they're encountered, and for the sake of equal dignity for all, this course follows the principles of Universal Design for Learning. This means, where possible, the SAS-prescribed UDL alternatives will typically be favoured over the usual, more generalized individual accommodations. All students with accommodations are encouraged to **discuss** their requirements with their instructor to ensure they're being met, but this must occur *before* issues arise.

b) Medical Self-Declaration Forms (brief absence up to 72 hours)

In the case of a short-term medical circumstance, if a student wishes to seek an academic consideration, please use the [Medical Self-Declaration Form](#). The request is to be made in good faith by the student requesting the academic consideration due to a short-term condition that impacts their academic activities (e.g., participation in academic classes, delay in assignments, etc.).

The period of this short-term medical condition for academic consideration must fall within a 72-hour (3 day) period. The form must be submitted to the instructor either during your brief absence or if you are too unwell, within 24 hours of the end of your 3 day brief absence.

Medical Verification Form (extended duration)

In cases where a student requests academic consideration due to a medical circumstance that exceeds 72 hours (three days) and will impact their academic activities (e.g., participation in academic classes, delay in assignments, etc.), or in the case of a final exam deferral, the [medical verification form](#) must be signed by the student and the health professional as per process set out in the [Faculty Handbook III:9.4.1](#).

- c) If you are experiencing mental health concerns, contact the Student Wellness and Accessibility Centre. *Good2Talk* is a service specifically for post-secondary students, available 24/7, 365 days a year, and provides anonymous assistance: [Good 2 Talk](#) or call **1-866-925-5454**. For information on wellness, coping and resiliency, visit: [Brock University \(Mental Health\)](#)
- d) If you require academic accommodation on religious grounds, you should make a formal, written request to your instructor(s) for alternative dates and/or means of satisfying requirements. Such requests should be made during the first two weeks of

any given academic term, or as soon as possible after a need for accommodation is known to exist.

- e) If you have been affected by sexual violence, the Human Rights & Equity Office offers support, information, reasonable accommodations, and resources through the Sexual Violence Support & Education Coordinator. For information on sexual violence, visit [Brock's Sexual Assault and Harassment Policy](#) or contact the Sexual Violence Support & Response Coordinator at humanrights@brocku.ca or 905 688 5550 ext. 4387.
- f) If you have experienced discrimination or harassment on any of the above grounds, including racial, gender or other forms of discrimination, contact the Human Rights and Equity Office at humanrights@brocku.ca.

List of topics

(Note: the following schedule is tentative)

Week	Lecture	Lab	Tutorial
1: Sep 4–6	Computer Systems		
2: Sep 9–13	Turtle Graphics — Variables and repetition	No lab	Setting up BlueJ on personal computers
3: Sep 16–20	Turtle Graphics — Methods, expressions	Repetition/composition	Variables, references, nesting
4: Sep 23–27	Parameters and scope	Methods	Expressions
5: Sep 30–Oct 4	Pictures — control structures	Parameters	Scope and parameters
6: Oct 7–11	Sounds — iteration, maximum	Pictures	Written midterm test
(Fall Break Week — Oct 14–18)			
7: Oct 21–25	Collections — 1D indexing, 2D indexing	Lab test week	Control structures
8: Oct 28–Nov 1	Data — Input, files, EOF, reports, output	Indexing on Sounds and Pictures	Booleans
9: Nov 4–8	GUI — forms, widgets, switch	Data processing	Indexing
10: Nov 11–15	Classes — objects, design	GUIs	Debugging
11: Nov 18–22	Persistence	Class design	Widgets
12: Nov 25–29	File processing or review	(No lab – review/help available)	Class design

Dates/times for the written and lab exam will be posted after the scheduling department assigns them.