

COMP 1406Z (Fall 2025)

Introduction to Computer Science II

Instructor: Ava McKenney

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Office Location: HP 5171

Best Ways to be in Touch: In class, Discord, or during office hours

Teaching Assistant: A list of teaching assistants and their contact/office hours information will be posted on the course Brightspace page.

Class Location: Please check Carleton Central for the room location.

Lecture Times: Thursdays 8:30-11:30am

Tutorial Times: See course Brightspace page.

Course Website: <https://brightspace.carleton.ca/>

Course Calendar Description

A second course in programming for BCS students, emphasizing problem solving and computational thinking in an object-oriented language. Topics include abstraction, mutable data structures, methods, inheritance, polymorphism, recursion, program efficiency, testing and debugging.

Precludes additional credit for [BIT 2400](#), [BUSI 2402](#), [ITEC 2400](#), [ITEC 2401](#), [SYSC 2004](#).

Prerequisite(s): [COMP 1005](#) or [COMP 1405](#). Restricted to students registered in the B.C.S. program, B.Cyber. program, B.D.S. program, combined Honours in Computer Science and Mathematics, Honours Computer Mathematics, and Honours Computer Statistics.

Learning Material(s) and Other Course/Lab-Related Resources

Learning Material	Options for Purchasing (<i>e.g., Bookstore, Used, etc.</i>)	Approximate Cost
COMP 1406 Notes	Link	Free
Java JDK 21	https://www.oracle.com/java/technologies/downloads/	Free
Visual Studio Code	https://code.visualstudio.com/	Free

Students are not required to purchase textbooks or other learning materials for this course.

Topics Covered and Learning Outcomes

Week	Topics	Assigned Readings
1	Introduction to Java, Classes and Objects	Course Notes Chapter #1 (all sections) Course Notes Chapter #2 (all sections) Course Notes Chapter #3 (3.1-3.5)
2	Principles of OOP	Course Notes Chapter #3 (3.6-3.8) Course Notes Chapter #4 (all sections)
3	Abstract Data Types, Data Structures, Exceptions, File Input and Output	Course Notes Chapter #8 (all sections) Course Notes Chapter #10 (all sections) Course Notes Chapter #11 (all sections)
4	Intro to JavaFX, Model View Controller Paradigm	Course Notes Chapter #5 (all sections) Course Notes Chapter #6 (all sections)
5	Recursion and Data Structures	Course Notes Chapter #9 (all sections)

If a student successfully engages with all lecture materials, completes the recommended practice problems, and regularly participates in supplementary activities, then by the end of this course that student should be able to:

- Implement computer programs using the object-oriented programming paradigm and the Java programming language
- Understand and effectively apply the key principles of object-oriented programming: encapsulation, abstraction, inheritance, and polymorphism
- Understand the basic memory model of Java programs
- Solve problems using a recursive approach
- Work with abstract data types to solve problems
- Apply exception handling to build fault-tolerant programs

Assessment Scheme

Grade Breakdown

COMPONENT	GRADE VALUE	DATE
Tutorials	5 x 3% each	Assigned weekly
Midterm	20%	Tuesday November 18 th , 9-11am
Project	25%	Due 11:59pm, December 5 th ,
Final Exam	40%	To be scheduled by Exam Services

Please note that tests and examinations in this course will use a remote proctoring service provided by Scheduling and Examination Services. You can find more information at <https://carleton.ca/ses/e-proctoring/>. All midterms and the final exam will be closed book. Both midterms and the final exam must be completed individually.

Tutorials and the course project can be completed individually or in teams of two. All code submitted by a student (or team of two, where applicable) for this course should solely be written manually by that student (or team of two, where applicable). No code should be copied from any other source unless permission is explicitly granted by the instructor.

A passing grade (50% or greater) on the final exam is required to pass the course. Any student who receives a grade of less than 50% in the final exam will receive a final grade of F.

Late and Missed Work Policies

Late Work

All tutorials and the project for the course will be due on 11:59pm on the stated deadline day. A 48-hour grace period will be allowed for each. You may submit your tutorial/project solutions any time within this 48-hour window without penalty. Beyond this grace period, no further extensions will be possible for any reason. Under extenuating circumstances, if you are seeking additional accommodations (e.g., due to an ongoing medical issue), you may petition the Associate Dean's office. Technical problems do not exempt you from this requirement, so if you wait until the last minute and then have issues with your computer or internet connection, you will still receive a mark of zero.

Missed Work

No accommodations will be made for missed work.

School of Computer Science Laptop Requirement

Every student that has been enrolled in a 1000-level (i.e., first year) course offered is required to have a laptop. This includes COMP1001, COMP1005, and COMP1006. For more information, please visit <https://carleton.ca/scs/scs-laptop-requirement/> and then review the requirements at <https://carleton.ca/scs/scs-laptop-requirement/laptop-specs/>.

Undergraduate Academic Advisors

The Undergraduate Advisors for the School of Computer Science are available in Room 5302HP; or by email at scs.ug.advisor@cunet.carleton.ca. The undergraduate advisors can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisors will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and Writing Tutorial Services.

SCS Computer Laboratory

Students taking a COMP course can access the SCS computer labs. The lab schedule and location can be found at: <https://carleton.ca/scs/tech-support/computer-laboratories/>. All SCS computer lab and technical support information can be found at: <https://carleton.ca/scs/tech-support/>. Technical support staff may be contacted in-person or virtually, see this page for details: <https://carleton.ca/scs/tech-support/contact-it-support/>.

Mental Health and Wellness

The [Carleton Wellness Website](#) is a useful resource for any students who may be struggling.

Academic Accommodations and Regulations

Academic Accommodation

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes are outlined on the Academic Accommodations website (<https://students.carleton.ca/course-outline/>).

Chat GPT/Generative AI Usage

Students may not use AI for any portion of any graded work within the course. This includes the tutorials, project, midterms, and final exam.

Academic Integrity

Students are expected to uphold the values of academic Integrity, which include fairness, honesty, trust, and responsibility. Examples of actions that compromise these values include but are not limited to plagiarism, accessing unauthorized sites for assignments or tests, unauthorized collaboration on assignments or exams, and using artificial intelligence tools such as ChatGPT when your assessment instructions say it is not permitted.

If you are unsure of the expectations regarding academic Integrity (how to use and cite references, if unauthorized collaboration with lab- or classmates is permitted (and, if so, to what degree), then you must ASK your instructor. Sharing assignment or quiz specifications or posting them online (to sites like Chegg, CourseHero, OneClass, etc.) is ALWAYS considered academic misconduct. You are NEVER permitted to post, share, or upload course materials without explicit permission from your instructor. Academic integrity offences are reported to the office of the Dean of Science. Information, process and penalties for such offences can be found on the ODS webpage: <https://science.carleton.ca/students/academic-integrity/>.

Misconduct in scholarly activity will not be tolerated and will result in consequences as outlined in [Carleton University's Academic Integrity Policy](#). A list of standard sanctions in the Faculty of Science can be found [here](#).

Additional details about this process can be found on [the Faculty of Science Academic Integrity website](#).

Students are expected to familiarize themselves with and abide by [Carleton University's Academic Integrity Policy](#).

Student Rights & Responsibilities

Students are expected to act responsibly and engage respectfully with other students and members of the Carleton and the broader community. See the [7 Rights and Responsibilities Policy](#) for details regarding the expectations of non-academic behaviour of students. Those who participate with another student in the commission of an infraction of this Policy will also be held liable for their actions.

Student Concerns

If you have any concerns regarding this course, your first point of contact is me. Please email me or visit during my student hours, and I will do my best to address your concerns. If I cannot resolve the issue, the next point of contact is the School of Computer Science at studentconcerns@scs.carleton.ca. If the concern remains unresolved, the final point of contact is the Office of the Dean of Science at ODScience@carleton.ca. Please follow this order of contact.

Note: You can also bring your concerns to [Ombuds services](#)