Introduction to Computer Science II

COMP 1006/1406 A - Fall 2025 (Preliminary Version)
School of Computer Science, Carleton University

Land Acknowledgement

Carleton University acknowledges the location of its campus on the traditional, unceded territories of the Algonquin nation. In doing so, Carleton acknowledges it has a responsibility to the Algonquin people and a responsibility to adhere to Algonquin cultural protocols.

Course Details

Instructor: Jason Hinek `<firstName lastName (at) cunet dot carleton dot ca>`

Lecture times: Tuesday & Thursday, 1:05am-2:25pm (Check Carleton Central for location)

Tutorials: Tuesday, 7:25pm-8:55pm (Check Carleton for location)

Lab Coordinator: Melody Habbouche

Teaching Assistants: A list of teaching assistants and their contact times will be posted on Brightspace when the course starts.

Course Website: Check our Brightspace page for more information.

Important dates and deadlines: Check the following website for fall/winter breaks, statutory holidays, etc. (https://students.carleton.ca/academic-dates/)

Note: Fall Break break is October 20-24 (there are no classes, tutorials or office hours).

Learning Modality

This is an in-person class. Classes, tutorials, midterm exams, and the final exam are all held in-person (final exam will be set by the Registrar's office).

Note: Some classes may be held online using Zoom (live or pre-recorded videos) in special circumstances (such as instructor illness or inclement weather).

Note: Some tutorial times may be used as open office hours, for teaching assistants to present material, or for more course content delivery (videos to watch).

Course Calendar Description

Note that COMP1006 and COMP1406 are the same course but you need to register in the correct course for your program.

COMP 1006 [0.5 credit]

Introduction to Computer Science II

A second course in programming 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.

Includes: Experiential Learning Activity

Also listed as COMP 1406.

Precludes additional credit for BIT 2400, BUSI 2402, ITEC 2400, ITEC 2401, SYSC 2004.

Prerequisite(s): COMP 1005 or COMP 1405.

Lectures three hours a week, tutorial one and a half hours a week.

COMP 1406 [0.5 credit]

Introduction to Computer Science II

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.

Includes: Experiential Learning Activity

Also listed as COMP 1006.

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.

Lectures three hours a week, tutorial one and a half hours a week.

Learning Outcomes

Upon successful completion of COMP1006/1406, students should be able to:

- Implement object-oriented computer programs using the Java programming language
- Understand and effectively apply the key principles of object-oriented programming:
  - encapsulation, inheritance, polymorphism, and abstraction
- Understand the basic memory model of Java programs
- Work with abstract data types to solve problems
- Apply exception handling to build fault-tolerant programs
- Save data to and load data from files
- Understand the Model-View-Controller framework

A schedule of topics for each week will be posted online once the course starts.

Assessment

Assignments: 5 main assignments + 2 midterm assignments	42%
Tutorials: weekly	8%
Midterm tests: two in-class tests; **Thursday** October 9th and **Thursday** November 13th	20%
Final Exam (Date TBA by university)	30%

Assignments

The main assignments (there are 5 of them) will mostly involve writing Java code but may also include some written tasks. The majority (if not all) of the *coding marks* will be based on the **correctness** of your code. All submitted code must **compile** and **run** in order to receive any correctness grades (for that question). Code that runs too long will receive zero correctness marks.

All assignments are due on Wednesdays 11:59pm. Assignments submitted past the deadline but less than 24 hours past the deadline (i.e., before 11:59pm on the Thursday) will receive a 10% deduction in grade. Assignments submitted later than 24 hours past the deadline but before 36 hours after the deadline (i.e., just before noon on the Friday) will receive a 20% deduction in grade. Assignments submitted 36 hours or more after the deadline will not be graded. Your LAST submission will be the submission that is graded and the time of that submission will determine any late penalties.

You may speak with TA's or the instructor if you need help, and are encouraged to discuss things with other classmates. But, **you must write your own answers and code**. Do not post or share solutions or partial solutions with anyone. A breakdown of the assignment schedule will be given when classes start.

If your Assignment 1 is your lowest main assignment grade, it will be removed and the remaining four assignments will make up your entire 40% (10% each). Otherwise, each assignment is worth 8% of your final grade. No other assignments will be dropped. There are no make-up assignments for missed submissions.

Midterm assignments will be due on the day of your midterm tests. These assignments are ***proof-of-study exercises***. More details of the midterm assignments will be given in class.

Tutorials

Tutorials will be held in-person. You can work alone or choose to work with others collaboratively on the tutorial material. Tutorial grades will be based on a tutorial quiz (found on Brightspace) that must be written individually. There is no attendance grade (so attendance is not mandatory), but this is a chance to get live help on the material from a teaching assistant. The best 8 tutorial grades will be used if there are more than 8 tutorials.

Midterm Tests

The two midterm tests will be written in class during class time. You will write code (using pencil and paper) and answer short questions about the course content.

If you do better on the second midterm (compared to the first), the second midterm grade will be used in place of your first (this does NOT work in the opposite order). A missed first midterm will receive a grade of zero.

If you miss the second midterm, the weight of the midterm will be shifted to the final exam.

If you miss both midterms then your final exam will be written (and not multiple-choice and/or multi-select)

Appeals

You have 1 week (from when grades are posted) to verify the correctness of your grades. You must make a grade appeal in Brightspace to seek a correction. Note that this is based on the release date of the grade and not the date you view them. No appeals will be accepted after this 1 week period.

Final Exam Scheduling

The time for our exam will be announced by the University. Be sure that you are available for the exam time. Travel plans are not an excuse to miss the final exam.

Workload

The expected workload is high. In typical offerings of this course, in addition to lecture times, it is expected that students in this course will spend 7 hours per week (on average) throughout the semester.

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Textbook

There are no additional costs for textbooks for this course.

Content for this course will come from posted course slides/notes. Supplemental material will come from Dr. Lanthier's Notes which are freely available at http://people.scs.carleton.ca/%7Elanthier/teaching/COMP1406/notes.html

Additional notes/videos/links may be posted to Brightspace (and these will all be freely available).

Undergraduate Academic Advisor

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 Laptop Requirement

Every student that has been enrolled in a 1000-level (i.e., first year) course offered by the School of Computer Science after the 2020/2021 school year 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/.

Academic Integrity

<TL;DR> Don't cheat.

This course has no group component, unless otherwise specified, and so all deliverables should be completed and submitted individually. Unless it is explicitly stated otherwise, the use of any A.I. systems will be considered academic misconduct. This includes, but is not limited to, chatbots (e.g., ChatGPT, Google Bard, Bing Chart, etc.), research assistants (e.g., Elicit), and image generators (e.g., Stable Diffusion, Dall-E, etc.), etc. Note that the above rule does not hold for automated grammar and punctuation checking tools (such as Grammarly).

To help enforce this policy, students may be randomly selected after each deliverable (Assignment or Challenge) to explain their code/work to the TAs/instructor in a one-on-one session. Marks may be removed if you cannot explain your submitted work.

In addition, sharing assignment, challenge, quiz, midterm or final exam 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.

 Different technologies may be used to detect plagiarism of submitted code. 

For more information about academic integrity please see
https://science.carleton.ca/students/academic-integrity/

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/

University Policies

Student Academic Integrity Policy

Every student should be familiar with the Carleton University Student Academic Integrity policy. A student found in violation of academic integrity standards may be sanctioned with penalties which range from a reprimand to receiving a grade of F in the course, or even being suspended or expelled from the University. Examples of punishable offences include plagiarism and unauthorized collaboration. Any such reported offences will be reviewed by the office of the Dean of Science. More information on this policy may be found on the ODS Academic Integrity page: https://carleton.ca/registrar/academic-integrity/.

Plagiarism

As defined by Senate, "plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". Such reported offences will be reviewed by the office of the Dean of Science. More information and standard sanction guidelines can be found here: https://science.carleton.ca/students/academic-integrity/.

Unauthorized Collaboration

Senate policy states that "to ensure fairness and equity in assessment of term work, students shall not co-operate or collaborate in the completion of an academic assignment, in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis".

Academic Accommodations

Carleton is committed to providing academic accessibility for all individuals. Please review the academic accommodation available to students here: https://students.carleton.ca/course-outline/.