Introduction to Computer Science II

COMP 1006/1406 A - Fall 2024 (Preliminary Version) School of Computer Science, Carleton University

Course Details

Instructor: Jason Hinek <<u>jasonhinek@cunet.carleton.ca</u>> Lecture times: Tuesday & Thursday , 11:35am-12:55pm (Check Carleton Central for location)

Tutorials: Check Carleton for times and locations

Lab Coordinator: Leila Chinaei <<u>leilachinaei@cunet.carleton.ca</u>>

Teaching Assistants: Nihar (he/him), Rayhaan, Sahil (he/him), Sameer (he/him). (contact info will be posted on Brightspace)

Learning Modality

This is an in-person class. Classes, midterm exams, and the final exam are all held in-person (see Carleton Central for class location; 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).

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 COMP 1006/1406, SYSC 1101 (no longer offered), SYSC 2004. Prerequisite(s): one of COMP 1405, COMP 1005, ECOR 1606, SYSC 1005, BIT 1400.

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, abstraction, inheritance, and polymorphism
- 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

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.

Assessment

Assignments: 5 main assignments + 2 midterm assignments	42%
Tutorials: weekly	8%
Midterm tests: two in-class tests; Thursday October 17th and Tuesday November 12th	30%
Final Exam (Date TBA by university)	20%

Assignments

Assignments will mostly involve writing Java code but may also include other 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 **breaks** any marking programs will receive zero correctness marks.

All assignments are due on Fridays at 11:59pm. However, there is a grace period of 48 hours for each assignment. That is, you can submit up to 48 hours late without penalty. Note that there will be no office hours or available help during this 48 hour time though.

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 responses 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.

Midterm assignments will be due on the day of your midterm tests. 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. Tutorial grades will be based on either a tutorial quiz (Brightspace) or

submitted code (Gradescope). There is no attendance grade (attendance is optional), but this is a chance to get live help on the material from a teaching assistant.

Midterm Tests

The two midterm tests will be written in class during class time. Note that there will be no make-up tests if you miss a test.

Appeals

You have 1 week (from when grades are posted) to verify the correctness of your grades. You must email the TA that graded your assignment/test within 1 week of the grades being posted 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 examination period is December 9-21. The time for our exam will be announced by the University by October 11th. Be sure that you are available for the exam time. Travel plans are not an excuse to miss the final exam.

Attendance

You must be present for both midterm tests and the final exam.

Workload

The expected workload is high. In typical offerings of this course, it is expected that students in this course will spend an average of 10 hours or more each week on this course.



This course has a high workload. It is expected that you will spend 10 or more hours per week (on average) throughout the term.



Textbook

Content for this course will come from posted course slides/notes. We will also be using Dr Lanthier's Notes <u>http://people.scs.carleton.ca/%7Elanthier/teaching/COMP1406/notes.html</u>

Additional notes/videos may be posted to Brightspace.

Important Dates

See the University Calendar for all important dates: https://carleton.ca/registrar/registration/dates/academic-dates/#sect4

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.

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/

Undergraduate Academic Advisor

The Undergraduate Advisors for the School of Computer Science are available in Room 5302HP; or by email at <u>scs.ug.advisor@cunet.carleton.ca</u>. 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/ and then review the requirements at

SCS Computer Laboratory

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

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: <u>https://science.carleton.ca/students/academic-integrity/</u>.

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/.