

## People

Instructor	Darryl Hill <a href="mailto:darrylhill@cunet.carleton.ca">darrylhill@cunet.carleton.ca</a>	HP5437	Office Hours: TBD
TA's	<a href="https://brightspace.carleton.ca">https://brightspace.carleton.ca</a>	TBD	Office Hours: TBD

## Course Information

Class Time	Wednesday & Friday 8:35 am - 9:55 am
Class Location	AT 102
Virtual Class <sup>1</sup>	Zoom link will be posted on Brightspace
Course Website	<a href="https://brightspace.carleton.ca">https://brightspace.carleton.ca</a>

The delivery of material will consist of the following:

- **Lectures** will be given **live** and **in class**.
- **Tutorials** are small weekly programming assignments in C++ to be submitted to **Brightspace**. Attendance to tutorials is not mandatory, **however** tutorial questions will **only be answered during the tutorials**. Tutorial help will **NOT** be available during office hours. Office hours are strictly for questions on assignments and class material. Tutorials must be submitted to Brightspace by due date indicated.
- **Assignments** will be **programmed using C++** and uploaded to **Brightspace** by the date indicated.
- The **midterm** will be **in class**.
- **TA office hours** will be in a room TBD
- In addition to office hours, questions pertaining to lectures, quizzes, and general course material can be asked / answered on **Discord** (link on **Brightspace**).
- The **final exam** will be a 2 hour **in-person exam** scheduled by registrar.

## Course Description

An introduction to object-oriented software development (in C++).

**Basics of C++ development:** basic language features, programming conventions, class definitions, constructors and destructors, memory management.

**Basics of object-oriented design:** object design categories, UML class diagrams.

**Essential object-oriented techniques:** encapsulation, inheritance, polymorphism, overloading, templates, exception handling, C++ library: STL, files and streams.

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<sup>1</sup>In the event that we revert to online classes.

**Software engineering techniques:** Philosophies of memory management, program organization, testing and debugging, design patterns.

## Prerequisites

COMP 2401 with C- or above. For all course prerequisites, see the course calendar here: [calendar.carleton.ca/undergrad/](http://calendar.carleton.ca/undergrad/)

## Reference Textbook

No textbook is required for this course. There are several good C++ reference books that you can use, including: Deitel and Deitel, C++ How to Program, any recent edition, Prentice Hall. Also [Google](#). The lecture slides and class examples will be your main references.

## Evaluation

Your performance in this course is assessed using several components. These include the best eight (8) out of nine tutorials, four (4) assignments, one (1) test, and one (1) final examination (scheduled by the registrar). Final grades will be determined using the scheme described below, and no extra credit assignments will be provided under any circumstances.

Tutorials (best 9 of 10)	( $\overline{1.33\%}$ each)	12%
Assignments (4)	(12% each)	48%
Midterm (1)		10%
Final Examination (1)		30%
<b>Total</b>		<b>100%</b>

**Grades:** Marks will be posted on Brightspace.

The midterm will be held **during class**.

Completing tutorials is **mandatory** and you will use Brightspace to submit them. The top 9 out of 10 tutorial marks will determine your tutorial grade. This includes tutorials missed because of illness and as such no other exemptions will be made for tutorial grades.

Assignments are **mandatory** and you will use Brightspace to submit them. The assignment component of your final grade is computed from the score you receive on each assignment; the lowest assignment grade will not be "dropped". You are expected to work on your assignments consistently once they are released (uploading your progress at least daily). As a result, you will never be granted an exemption from an assignment, even for a legitimate medical reason. **Late assignments are never accepted.**

It is **your responsibility** to ensure that your quiz, tutorial, and assignment marks posted to Brightspace are correct within two weeks of the date the marks were released. Concerns or complaints about grading must be communicated (first to the teaching assistant, then, if the result is unsatisfactory, to the instructor) within that time. After those two weeks, all marks are considered final and will not be changed under any circumstances.

## Collaboration Policy

- ★ There is absolutely no collaborating allowed for the tests.

Collaboration on assignments and tutorials is acceptable but only at the level of discussion. When coding your solutions, please work on your own. If you need help, please contact a TA or your instructor. Posting assignment solutions or partial solutions on discussion boards before the due date and time is also prohibited.

## Important Considerations

**Late assignments are not accepted.** Assignments submissions are handled electronically (i.e., through Brightspace) and there is no "grace period" with respect to a deadline - an assignment submitted even one minute **after the deadline is late** and will **receive a mark of zero**.

**Technical problems do not exempt you from this requirement**, so if you wait until the last minute and then have issues with your connection, you will still receive the penalty. Consequently, you are advised to

- periodically upload you progress (i.e., upload your progress at least daily),
- attempt to submit your final submission at least one hour in advance of the due date and time.

Students with an **illness** during the span of time a midterm is offered might be granted an exemption **only if they provide a copy** of the [Carleton University Self Declaration Form](#). The weight of the midterm will then be applied to the final exam mark. Furthermore, because assignments are posted well in advance of their due dates, **illness does not excuse a student from completing an assignment**. No provision is made for missed assignments, and no extra credit assignments will be available.

## Additional Notes

In addition to the time spent attending lectures, students can expect to spend **at least nine (9) hours per week** on this course. Students are responsible for all course materials, including lecture notes, and all materials discussed in class and on any of the official discussion boards.

Students are asked to pose all questions related to course content using **the official discussion boards on Discord**; students should not email the instructor directly unless the question contains **confidential information** or is of a personal nature.

The instructor will attempt to answer every student email received **within three business days** of the time the message was received, unless the email requests information already posted on Brightspace or in the course outline. To ensure that all announcements are received, students are expected to check their email on a daily basis.

All materials created for this course (including, but not limited to, lecture notes, in-class examples, assignments, examinations, and posted solutions) **remain the intellectual property of the instructor**. These materials are intended for the personal and non-transferable use of students registered in the current offering of the course. **Reposting, reproducing, or redistributing any**

**course materials**, in part or in whole, without the written consent of the instructor, **is strictly prohibited**.

## SCS Computer Laboratory

SCS students can access one of the designated labs for your course. The lab schedule 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/technical-support>. Technical support is available in room HP5161 Monday to Friday from 9:00 until 17:00 or by emailing [SCS.Tech.Support@cunet.carleton.ca](mailto:SCS.Tech.Support@cunet.carleton.ca).

## Undergraduate Academic Advisor

The Undergraduate Advisor for the School of Computer Science is available in Room 5302C HP, by telephone at 520-2600, ext. 4364 or by email at [scs.ug.advisor@carleton.ca](mailto:scs.ug.advisor@carleton.ca).

The undergraduate advisor can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisor will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and the Writing Tutorial Services.

## COVID-19 Policies

It is important to remember that COVID is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real. There are [a number of actions you can take](#) to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you're sick, washing your hands and maintaining proper respiratory and cough etiquette.

**Feeling Sick?** Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you must follow Carleton's [symptom reporting protocols](#).

**Masks:** Carleton has paused the [COVID-19 Mask Policy](#), but continues to strongly recommend masking when indoors, particularly if physical distancing cannot be maintained. It may become necessary to quickly reinstate the mask requirement if pandemic circumstances were to change.

**Vaccines:** Further, while proof of vaccination is no longer required as of May 1 to attend campus or in-person activity, it may become necessary for the University to bring back proof of vaccination requirements on short notice if the situation and public health advice changes. Students are strongly encouraged to get a full course of vaccination, including booster doses as soon as they are eligible, and submit their booster dose information in [cuScreen](#) as soon as possible. Please note that Carleton cannot guarantee that it will be able to offer virtual or hybrid learning options for those who are unable to attend the campus.

All members of the Carleton community are required to follow requirements and guidelines regarding health and safety which may change from time to time. For the most recent information about Carleton's COVID-19 response and health and safety requirements please see the [University's COVID-19 website](#) and review the [Frequently Asked Questions \(FAQs\)](#). Should you have additional questions after reviewing, please contact [covidinfo@carleton.ca](mailto:covidinfo@carleton.ca).

## University Policies

Full academic regulations are found in the University's calendar (<http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/>) Some excerpts are below.

### ***Academic Integrity***

Every student should be familiar with the Carleton University student academic integrity policy. If you have been accused of breaching the Academic Integrity Policy, your Faculty Dean will inform you by email and in writing of the nature of the charge, the evidence against you, the procedures to be followed. For details on the procedure and policy, see <https://carleton.ca/registrar/academic-integrity/>

### ***Requests for Academic Accommodation***

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

### ***Academic Accommodations for Students with Disabilities***

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. Visit the PMC website: <http://carleton.ca/pmc>

### ***Religious Obligations***

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit <https://carleton.ca/equity/focus/discrimination-harassment/religious-spiritual-observances/>

### ***Pregnancy Obligation***

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: <http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf>

### ***Survivors of Sexual Violence***

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more informa-

tion about the services available at the university and to obtain information about sexual violence and/or support, visit: <http://carleton.ca/sexual-violence-support>

For more information on academic accommodation, please contact the departmental administrator or visit: <http://students.carleton.ca/course-outline>

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