

# COMP 2804B - Fall 2023

## Discrete Structures II



### People

Instructor	Darryl Hill <a href="mailto:darrylhill@cunet.carleton.ca">darrylhill@cunet.carleton.ca</a>	HP5347	Office Hours: TBD
TA's	<a href="https://brightspace.carleton.ca">https://brightspace.carleton.ca</a>	TBD	Office Hours: TBD

### Course Information

Class Time	Days: Monday & Wednesday Time: 8:35 - 9:55
Class Location	Please refer to the public schedule.
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**.
- **TA office hours** will be in room TBD
- In addition to office hours, questions pertaining to lectures, quizzes, and general course material can be asked / answered on **Brightspace**.
- **Assignments** will be **typeset**, **exported to pdf**, and uploaded to **Brightspace** by the date indicated.
- The **midterm** will be **in class**.
- The **final exam** will be an **in-person exam** scheduled by registrar.

### Course Description

A second course that is designed to give students a basic understanding of Discrete Mathematics and its role in Computer Science. Computers handle discrete rather than continuous data. This course presents an overview of some of the major theoretical concepts needed to analyze this type of data. Topics covered include counting, recursion, discrete probability, random variables, randomized algorithms. Material is illustrated through examples from computing.

### Prerequisites

Must have prerequisite COMP 1805 with C- or above to remain in course. Grade of B+ or greater required in COMP 2804 to take COMP 3801. For all course prerequisites, see the course calendar here: [calendar.carleton.ca/undergrad/](https://calendar.carleton.ca/undergrad/)

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<sup>1</sup>Classes are recorded over Zoom and posted on Brightspace for your convenience.

## Reference Textbook

The following free textbook will be used: [Discrete Structure for Computer Science: Counting, Recursion, and Probability](#). Additional material: [Mathematics for Computer Science](#) by Eric Lehman, F. Thomson Leighton, and Albert R. Meyer.

## Evaluation

Your performance in this course is assessed using several components. These include four (4) assignments, one midterm, and one 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.

Assignments (x4)	(6.25% each)	25%
Midterm		25%
Final Examination		50%
<b>Total</b>		<b>100%</b>

**Grades:** Marks will be posted on Brightspace. It is your responsibility to ensure that your test and assignment marks posted to Brightspace are correct within one week 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 one week, 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 is acceptable but only at the level of discussion. When writing down the solutions, please write them down on your own. If you need help, please contact a TA or your instructor. Posting assignment 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 your 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 Brightspace**; 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.

# 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 is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information 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>