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## People

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| Instructor          | Sander Verdonschot ( <a href="#">contact info</a> )  |
| Teaching Assistants | TBA (see <a href="https://www.carleton.ca/culearn/">https://www.carleton.ca/culearn/</a> ) |

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## Course Information

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| Classroom               | Building: University Centre   | Room: 182 |
| Class Times             | Tuesdays 5:05pm – 7:55pm (Lecture)<br>Tuesdays 8:05pm – 8:55pm (Tutorial)       |           |
| Course Website          | <a href="https://www.carleton.ca/culearn/">https://www.carleton.ca/culearn/</a> |           |
| Course Discussion Group | <a href="https://www.carleton.ca/culearn/">https://www.carleton.ca/culearn/</a> |           |

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## Course Description

This course is designed to give students an understanding of Discrete Mathematics and Discrete Structures. The primary focus is on the role these structures play in Computer Science. Computers handle discrete rather than continuous data. The course presents a basic overview of some of the main theoretical concepts. Topics include: propositional logic, predicate calculus, set theory, functions and relations, sequences and sums, complexity of algorithms, mathematical reasoning and proof techniques, recurrences, induction and graph theory. Material is illustrated through examples from computing.

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## Prerequisites

One Grade 12 university preparation mathematics course. Precludes additional credit for MATH 1800.

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## Reference Material

On the website ([Discrete Math Study Center](#)), you will find the following:

- Course Notes
- Video lectures (from Winter 2015)
- A database of solved problems pertaining to every topic presented in this course
- Sample tests and exams

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## Reference Textbook

**Mathematics for Computer Science** by E. Lehman, F.T. Leighton, and A.R. Meyer. ([free pdf](#)). This is a free textbook that contains an overview of most of the topics presented in this course.

## Evaluation

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| 40%  | Five assignments due May 17th, June 7th, July 12th, Aug 2nd, and Aug 16th (tentative) |
| 30%  | Four in-tutorial tests on May 24th, June 14th, July 19th, and August 9th              |
| 30%  | Final Exam (scheduled by the university) (must pass)                                  |
| 100% | Total   |

**Tests:** Each test is 45 minutes long and must be written during the tutorial. Test 4 is optional and your test grade (30%) will be determined by the best three of the four tests (with each test being 10%). **There are no make-up tests.** If you miss a test for a valid (and documented) reason, the weight of that test will be moved to the final exam.

**Assignments:** There will be five hand-written assignments that you will submit in the course drop box in HP 3155, before midnight on the due date. **No late submissions will be accepted.** Your assignment grade (40%) is determined by the best four of the five assignments, with each assignment counting for 10%.

**Final Exam:** The final exam will be three hours long. The time and location will be determined and announced by the university. **In order to pass the course, students must obtain a passing grade on the final exam.**

**Grades:** Marks will be posted on cuLearn. It is your responsibility to check cuLearn frequently and make sure that your marks are correctly recorded. All marked assignments and tests should be retained by students as proof of completion and in case your grades appear differently on cuLearn.

**Appeals:** Test appeals must be made within two weeks from the date that the test was returned to the class in tutorials. If you wish to appeal a test grade you should consult with the teaching assistant that graded your test first. Appeals made after the two week period will be returned without consideration. (Simple arithmetic errors are the only exception to this rule. These will always be corrected no matter when they are reported.)

## Collaboration Policy

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★ There is absolutely no collaborating allowed on the tests and final exam.

Collaboration on assignments at the level of discussion is allowed, and even encouraged. However, each student must **write the solution themselves**, in their own words. If you need help, please see a TA or your instructor. Copying of solutions is considered plagiarism and will be dealt with accordingly. Posting solutions on discussion boards before the due date and time is also prohibited.

## Communication Policy

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- Important course-related announcements will be posted on cuLearn and forwarded to students' email accounts.
- Most questions regarding the course material, assignments, or course organization should be posted to cuLearn. However, **do not post (partial) solutions to assignment questions before the due date.**
- Questions posted on cuLearn will be answered within 24 hours on weekdays.
- Confidential matters should be discussed during the instructor's office hours, or through email.
- Emails that follow these guidelines will be answered within 24 hours on weekdays.

## Undergraduate Academic Advisor

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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 [undergraduate\\_advisor@scs.carleton.ca](mailto:undergraduate_advisor@scs.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

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Full academic regulations are found in the University's calendar ([link](#)). Some excerpts are below.

### *Academic Integrity*

Every student should be familiar with the Carleton University student academic integrity policy. A student found in violation of academic integrity standards may be awarded penalties which range from a reprimand to receiving a grade of F in the course or even being expelled from the program or University. Some examples of offences are: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found in the Undergraduate Calendar.

Plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own. Plagiarism includes reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source.

In cases where an investigation determines that a violation of the Academic Integrity Policy has occurred, sanctions may be applied by the Faculty Dean, the Provost and Vice President (Academic), or by Senate Executive.

Sanctions may include but are not limited to completion of a remediation process, a written reprimand, assignment of a failing grade, withdrawal from a course, suspension from a program, suspension or expulsion from the university.

### *Students with Disabilities*

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision.

If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and 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 me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable) at

<http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/>

### *Religious Obligations*

Carleton University accommodates students who, due to religious obligation, must miss an exam-

ination, test, assignment deadline, laboratory, or other compulsory event. The University has a Senate-approved policy on religious accommodation that forms part of its Human Rights Policy, available at: <http://www2.carleton.ca/equity/>

Accommodation will be worked out directly and on an individual basis between the student and the instructor(s) involved. Students should make a formal written request to the instructor(s) for alternative dates and/or means of satisfying requirements. Such requests should be made during the first two weeks of any given academic term, or as soon as possible after a need for accommodation is known to exist, but in no case later than the penultimate week of classes in that term.

### ***Pregnancy Obligation***

Write to me 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://www2.carleton.ca/equity/>

### ***Medical Certificate***

The following is a link to the official medical certificate accepted by Carleton University for the deferral of final examinations or assignments in undergraduate courses. To access the form, please go to <http://www.carleton.ca/registrar/forms/>

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