This course is a course on the design and analysis of algorithms. Topics include: Basics of Algorithm Analysis, Algorithm Design Techniques (Greedy Algorithms, Divide-and-Conquer, Dynamic Programming), Graphs and Graph Algorithms, Linear Programming, NP-Completeness.

Prerequisites
COMP 2002 or COMP 2402, and either COMP 2805 or both of MATH 2007 and MATH 2108, or equivalents.

Reference Textbook
Textbook: There is no required text for this course and all notes written on the board will be made available to the students. The reference textbook for this course is *Algorithms* by Dasgupta, Papadimitriou and Vazirani, however all of the concepts taught in the class will also have many freely available online references.

Evaluation

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<tr>
<th>Percentage</th>
<th>Description</th>
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<tr>
<td>30%</td>
<td>Four assignments</td>
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<tr>
<td>30%</td>
<td>Two in-class tests. Dates: Oct 6 and Nov 3</td>
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<tr>
<td>40%</td>
<td>Final Exam (scheduled by the university)</td>
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<td>100%</td>
<td>Total</td>
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**Grades:** Marks will be posted on cuLearn.
Collaboration Policy

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

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 see a TA or your instructor. Posting assignment solutions on discussion boards before the due date and time is also prohibited.

Note: Even though each test will cover specific topics, they are also cumulative.

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 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

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 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). Requests made within two weeks will be reviewed on a case-by-case basis.

After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website (www.carleton.ca/pmc) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

Religious Obligations
Carleton University accommodates students who, due to religious obligation, must miss an examination, 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/