

Carleton University School of Computer Science
COMP 3804 / MATH 3804 / ISYS 5802 / Math 5802
Design and Analysis of Algorithms I FALL

Class Schedule

Classroom:	Via Zoom and recorded for Brightspace
Class Times:	Days: Wed Fri Time: 8:35-9:55
Course Website:	The material will be placed on Brightspace.

Learning Modality

In Fall 2021, content for this course will be delivered online. Initially, at least, the plan is to do it as ZOOM Live Stream from a set-up I created at my home that includes a whiteboard. Students can tune into at the scheduled time (see the lecture schedule below). We will do interaction during these lectures to make it more interesting and engaging. The lectures will then be shared via Brightspace.

Instructor Information

Professor	Office	Email	Office Hours
Dr. J.-R. Sack	online	sack@scs.carleton.ca	Wednesdays 14:00-15:00 or ask for an appointment via email

Teaching Assistants

There are some TAs who are performing different duties (tbd).

T.A.	Office Hours (to be confirmed)	Room Number (to be confirmed)
	tbd	

	tbd	
	tbd	

Course Description

An introduction to the design and analysis of algorithms. Topics include: divide-and-conquer, dynamic programming, linear programming, greedy algorithms, graph algorithms, NP-completeness.

Also listed as [MATH 3804](#).

Prerequisites (COMP 2402 or SYSC 2100) and either COMP 2804 or (MATH 2007 and MATH 2108).

To help students achieve their individual objectives in this course, we will do an initial assessment test (anonymous) and provide students with three 30-minute background review sessions. Each session will be offered two times for your convenience. They are not mandatory.

Background Review Sessions (attendance not mandatory, but highly recommended). Due to the traditional high failure rate, I am trying to help you to succeed. I will organize three different sessions, each offered twice (same material in each of the two). The sessions will get you ready for the course (as much as possible). The final dates and times will be in an ANNOUNCEMENTS.pdf file.

Textbook (s)

Introduction to Algorithms (3rd Edition) by Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein (2009). ISBN 0-262-03384-4. Published by MIT Press.

Evaluation

Students will be evaluated in this course according to the following measures.

Component	Weight	Due Dates (estimated – final dates as per announcements)
Assignment 1	10%	Sunday, October 2 nd 23:59 online
Assignment 2	10%	Sunday, October 23 rd 23:59 online
Assignment 3	10%	Sunday, November 13 th 23:59 online
Test	20%	November 20 th online
Assignment 4	10%	Sunday, December 4 th 23:59 online
Final Exam	40%	by central scheduling

Assignments will be submitted online in pdf via Brightspace (details to be provided by me or a TA). Typed assignments are preferred. Figures may be drawn and scanned in. It is your responsibility to ensure that the quality of the pdf is good so that the TAs can read them easily. Scanners are accessible in many locations on Campus. Pictures taken with mobile devices must be of top quality.

Excerpts from Calendar

FALL TERM 2021

September 1, 2021 Last day for receipt of applications from potential fall (November) graduates.

Deadline for course outlines to be made available to students registered in fall and fall/winter term courses.

September 6, 2021 Statutory holiday. University closed.

September 7, 2021 Academic orientation (undergraduate and graduate students).

Orientation for new Teaching Assistants.

All new students are expected to be on campus. Class and laboratory preparations, departmental introductions for students and other academic preparation activities will be held.

September 8, 2021	Fall term begins. Fall and fall/winter classes begin.
September 17-19, 2021	Full and late summer term deferred final examinations to be held.
September 22, 2021	Last day of registration for fall term and fall/winter courses. Last day to change courses or sections (including auditing) for fall term and fall/winter courses. Graduate students who have not electronically submitted their final thesis copy to the Faculty of Graduate and Postdoctoral Affairs will not be eligible to graduate in fall 2021 and must register for the fall 2021 term.
September 30, 2021	Last day to withdraw from fall term and fall/winter courses with a full fee adjustment. Withdrawals after this date will result in a permanent notation of WDN on the official transcript.
October 8, 2021	December examination schedule (fall term final and fall/winter mid-terms) available online.
October 11, 2021	Statutory holiday. University closed.
October 15, 2021	Last day for receipt of applications for admission to an undergraduate degree program for the winter term from applicants whose documents originate from outside Canada or the United States.
October 25-29, 2021	Fall break, no classes.
November 12, 2021	Last day to request Formal Examination Accommodation Forms for December examinations to the Paul Menton Centre for Students with Disabilities. Note that it may not be possible to fulfil accommodation requests received after the specified deadlines.

November 15, 2021	Last day for receipt of applications for admission to an undergraduate degree program for the winter term.
November 26, 2021	Last day for summative tests or examinations, or formative tests or examinations totaling more than 15% of the final grade before the official examination period (see examination regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar).
December 1, 2021	Last day for receipt of applications from potential winter (February) graduates. Last day for graduate students to submit their supervisor-approved thesis, in examinable form to the department.
December 10, 2021	Fall term ends. Last day of fall term classes. Classes follow a Monday schedule. Last day for take home examinations to be assigned, with the exception of those conforming to the examination regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar. Last day for academic withdrawal from fall term courses. Last day for handing in term work and the last day that can be specified by a course instructor as a due date for term work for fall term courses. Last day for receipt of applications for undergraduate degree program transfers for winter term.
December 11-23, 2021	Final examinations in fall term courses and mid-term examinations in fall/winter courses may be held.

Examinations are normally held all seven days of the week.

December 23,
2021

All take home examinations are due on this day, with the exception of those conforming to the examination regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar.

December 25,
2021 through
January 1, 2022
inclusive

University closed.

Final Exam Note

The final exam will be scheduled by the University.

Assignments

Late assignments will not be accepted. Late is after the deadline specified.

Collaboration Policy

Students are encouraged to collaborate on assignments, but at the level of discussion only. When writing down the solutions, students must do so in their own words.

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

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 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

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.

Unauthorized Co-operation or 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".

Students with Disabilities Requiring Academic Accommodations

Register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities could include but are not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions. Registered PMC students are required to contact the PMC, 613-520-6608, every term to ensure that I receive your Letter of Accommodation, no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you only require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC by the deadlines published on the PMC website.

Religious Obligation

Write to me concerning 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.

Pregnancy Obligation

Write to me concerning 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.

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 <https://carleton.ca/registrar/wp-content/uploads/Medical-Certificate-Form.pdf>.