COMP 4602 / 5900H for Winter 2022
Social Networking

Course Outline

Course Information
Instructor: Alan Tsang (https://people.scs.carleton.ca/~alantsang/)
Contact: Alan.Tsang@carleton.ca
Course Website: https://brightspace.carleton.ca/d2l/home
Lectures: Tuesday & Thursday, 1135 – 1325 (online)
- Note that lecture classes will only be 80 minutes long, but the full 2 hours will be needed for student presentations in the final weeks of the course
Office Hours: Tuesday, 1255 – 1355 (online) or by appointment
- Office hours will take place on Zoom after Tuesday’s class. The Zoom link will remain active for 10 minutes or until there are no more students queued. If the Zoom link is not live, contact the instructor by email or Discord. Emails and Discord messages during this hour will be replied to promptly and you may request quick meetings on Zoom.

Last Revised:

Teaching Assistants
Contact info for your TA will be posted once the course starts.

Course Calendar Description
Convergence of social and technological networks. Interplay between information content, entities creating it and technologies supporting it. Structure and analysis of such networks, models abstracting their properties, techniques link analysis, search, mechanism design, power laws, cascading, clustering and connections with work in social sciences. Prerequisite(s): one of COMP 1805, MATH 1805, and one of COMP 2401, SYSC 2006, and COMP 2406.
Format: Online Synchronous

Course Objectives
Social networks are mathematical constructs that model human and mechanical relationships. This course will survey mathematical and computational methods for modeling and analyzing networks in a variety of domains and applications. Students will learn how to construct suitable network models for these domains and analyze emergent properties derived from the network structure.
Textbooks (Not Mandatory):

Primary Textbook (downloadable at the link)

Other Useful References

Course Format and Assessments

The course has **two synchronous sessions every week** over Zoom. Links will be posted on Brightspace.

Lectures are structured for synchronous delivery and live QA. Attendance is recommended but not mandatory. Videos will be made available through Brightspace. Assessments will be done via assignments and final project. Undergraduate students must work in project groups of 2 to 4. Graduate students will work solo on the project.

Inquiries

If you have a question (ex: clarification on readings, discussion about something said during class, questions about assignments), you should **post them to Discord** so your classmates can benefit from the discussion. If the question is about your assessments or situation, you may email the instructor or leave a message on Discord.

Please **add COMP 5900 or 4602 in your email subjects** to ensure they are prioritized. Do not post code or assignment answers in the open or in course discussions. Questions about assessments will **not be answered within 24 hours** of the due date.

You may also schedule an appointment by emailing the instructor or assigned TAs.
Topics Covered

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<td>Introduction to graph theory</td>
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<td>Cascades, Voting</td>
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Other important dates and deadlines can be found [here](#).

Assessment Scheme

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<tr>
<th>Percentage</th>
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<tr>
<td>45%*</td>
<td>Final Project</td>
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<tr>
<td>15%*</td>
<td>Presentation</td>
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<tr>
<td>40%</td>
<td>Assignments</td>
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* Group grade for undergraduates enrolled in COMP 4602

It is your responsibility to ensure submitted files are correct and human-readable, and code is runnable and well documented. You may upload multiple versions on Brightspace; only the most recent version will be graded. If your files cannot be read or run by the grader, a grade of 0% will be assessed unless earlier submissions on Brightspace can be accessed.

Late Policy

All assignments and the final project may be submitted up to 48 hours late, with **no late penalty**. Presentations must be done on the assigned date.

This policy accommodates unexpected circumstances such as technical and personal issues; therefore, no additional extensions will be granted (excepting accommodations provided by
social networking university policy). Submissions are handled electronically via cuLearn and items submitted after the extended deadline (by even one minute) will not be accepted.

Writing and Academic Integrity

This course includes significant written evaluation components. This may be the first time you have written long form prose in a while. Nonetheless, clear and concise written communication is a valuable skill for computer scientists. Marks will be deducted for grammar, spelling, and punctuation errors, and other mangled misuse of language. You are expected to follow academic integrity guidelines, particularly the section on plagiarism. Plagiarism is often very obvious to the marker. Don’t do it!

Other academic boilerplate:
If you are unsure of the expectations regarding academic integrity (how to use and cite references, how much collaboration with lab- or classmates is appropriate), ASK your instructor. Sharing assignment or quiz specifications or posting them online (to sites like Chegg, CourseHero, OneClass, etc.) is considered academic misconduct. You are never permitted to post, share, or upload course materials without explicit permission from your instructor. Academic integrity offences are reported to the office of the Dean of Science. Penalties for such offences can be found on the ODS webpage: https://science.carleton.ca/academic-integrity/.

Undergraduate Academic Advisor

The Undergraduate Advisor for the School of Computer Science is available in Room 5302C HP; or by email at scs.ug.advisor@cunet.carleton.ca. The undergraduate advisors can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisors will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and Writing Tutorial Services.

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.
University Policies

For information about Carleton's academic year, including registration and withdrawal dates, see Carleton's Academic Calendar.

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 Equity Services.

Religious 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 https://carleton.ca/equity/focus/discrimination-harassment/religious-spiritual-observances/.

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 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. For more details, visit the Paul Menton Centre website.

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 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: carleton.ca/sexual-violence-support.

Accommodation for Student Activities. Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. 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, see the policy.

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. Examples of punishable offences include: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found here.
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. Standard penalty guidelines can be found here.

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". Please refer to the course outline statement or the instructor concerning this issue.

Brightspace – FGPA Access to Brightspace
University of Ottawa Joint Program graduate students (only) can request access by filling out the form.

Acknowledgements
This course is based on the previously offered COMP 4206 / 5310, prepared by Professor Evangelos Kranakis.