CS 581 – ONLINE SOCIAL NETWORKS - FALL 2020
Charles V. Schaefer, Jr. School of Engineering & Science

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Course URL :   https://sit.instructure.com/courses/39034
Prerequisite(s):   CS-392 and CS-182 or CS-385 or CS-570 or CS-590

COURSE COMPONENTS

1. Several short programming assignments that involve working with online social network APIs, graphs, and data.	*Due on Wednesday nights as indicated in the schedule*
2. Readings and problems involving social network properties, using a text (provided in .pdf format).	
3. Readings and assignments concerning online social networks in general, especially regarding recent events in the news.	
4. Discussion board: discuss the week's topic or any other part of online social networks, especially current news and articles.	*The grading week will run from Monday to Sunday*

COURSE MATERIALS

Textbook: Networks, Crowds, and Markets: Reasoning about a Highly Connected World
by: David Easley and Jon Kleinberg
This text is available on the course Canvas site for reading or download, and can also be found at: https://www.cs.cornell.edu/home/kleinber/networks-book/networks-book.pdf

Readings: articles or links provided on Canvas site

ASSIGNMENTS

The Module on the Canvas site for each of the written, text, and programming assignments has its own Assignment submission location within the module. Everything you want graded must be submitted in a document uploaded to Canvas. ***Do NOT use submission comments*** to submit any of the required information. (You may still use them for comments.) If you submit multiple files, please submit them in a compressed (zip) file that is ***labeled with your last name*** – both inner folder and zip folder; eg: Dugas_HW3.zip

SCHEDULE (subject to change**)**

WEEK	TOPIC	ASSIGNMENT	DUE DATE
	CS581 SCHEDULE - FALL 2020		
8/31-9/6	*Intro; Going Viral*	*Assignment 1*	9/2
9/7-9/13			
9/14-9/20	Graph Theory and Social Networks	Assignment 2	9/16
9/21-9/27	**YouTube API registration**	**API 3**	9/23
9/28-10/4	**YouTube API**	**Assignment 3**	9/30
10/5-10/11			
10/12-10/18	Game Theory and Social Networks	Assignment 4	10/14
10/19-10/25			
10/26-11/1	**Graph Program**	**Assignment 5**	10/28
11/2-11/8	*Privacy and Ethics in Online SN*	*Assignment 6*	11/4
11/9-11/15	**Twitter API registration**	**API 7**	11/11
11/16-11/22	**Twitter API**	**Assignment 7**	11/18
11/23-11/29			
11/30-12/6	Dynamics in Social Networks	Assignment 8	12/2
12/7-12/13	**Social Network Data Analysis**	**Assignment 9**	12/9
	blue italic = written assignment		
	red regular = text assignment		
	green bold = programming		

Written Assignments: *All assignments are Individual. Collaboration is considered cheating and will receive a zero grade.*   Written work should be submitted in .pdf or Word format, in a document *labeled with your last name*, eg: Dugas_HW3.pdf. You may include legible hand-drawn diagrams in your document, but *all other text must be typed*. All written work must use complete sentences and proper grammar. Written work will be screened for plagiarism; plagiarism will result in a zero grade and possible reporting to the administration. Be sure you understand plagiarism and reference citation. Quoted material will not be counted toward word count requirements. If you need help with writing, Stevens has a Writing and Communications Center that – despite its misleading URL – is available for both undergraduate and graduate students: [The WCC site is also reachable through MyStevens]
https://www.stevens.edu/academics/undergraduate-studies/writing-communications-center.

Programming Assignments: *All assignments are individual. Collaboration is considered cheating and will receive a zero grade.* Programming assignments are used to illustrate characteristics of online social networks and are not meant to be difficult, but **can be time-consuming** so be sure to plan ahead. Please follow the guidelines and specifications as outlined in the assignments. If you "borrow" code, be sure to document the details of the source; otherwise it will be considered plagiarism and result in a zero grade for the assignment. Programming can be done in a variety of languages. Python is a great choice for this course because there is a lot of support for working with OSN APIs in Python. Course examples use python. Materials or links to aid in learning Python are posted on the canvas site, although you can find an enormous amount of supportive materials of all kinds online.

Discussion Board: The discussion forum is an important part of the course, for discussing both course learning and current online social network news. You are expected to post meaningful comments (not just a sentence or agreement) at least once a week. You may start a new discussion or continue an existing one. Online social networks are constantly changing, and you are encouraged to submit news articles and other current materials that you come across. You must post on the discussion board in at least 12 weeks of the semester in order to earn the 6%.

Assignment Grading: *There are no extensions except in extremely unusual cases. It is advisable to plan ahead for the assignments and start early.* Late assignments are penalized: up to 24 hours: 20%; 24-48 hours: 40%; >48 hours: zero grade. Once a grade is posted, you will have one week to question/dispute it. After that it is final and unchangeable. There is no extra credit in this course.

GRADING: Grades will be based on:

Written Assignments	16%	*(8% each)*
Text Assignments	30%	*(10% each)*
Programming Assignments	48%	*(12% each)**
Discussion Board	6%	*(.5 % for each week with 1 or more meaningful posts)*

	100%	

* the YouTube and Twitter assignments are in two parts: API registration and Program

Stevens Graduate Grading:

A	100% to 93%	B-	< 83% to 80%
A-	< 93% to 90%	C+	< 80% to 77%
B+	< 90% to 87%	C	< 77% to 70%
B	< 87% to 83%	F	< 70% to 0%

Other Issues: I realize that there is life outside CS581 and things can get complicated. If you are experiencing unusual difficulties, please let me know right away so that we can address it.

STUDENT LEARNING OUTCOMES
After successful completion of this course, students will be able to…
- Work with real-life online social networks
- Design algorithms for social networks
- Program with online social networks APIs
- Understand dynamic properties of online social networks
- Analyze privacy issues in online social networks
- Understand the influence of online social networks

COURSE FORMAT AND STRUCTURE
This course is fully online. To access the course, please visit stevens.edu/canvas . For more information about course access or support, contact the Technology Resource and Assistance Center (TRAC) by calling 201-216-5500.

ACADEMIC INTEGRITY

Undergraduate Honor System

Enrollment into the undergraduate class of Stevens Institute of Technology signifies a student's commitment to the Honor System. Accordingly, the provisions of the Stevens Honor System apply to all undergraduate students in coursework and Honor Board proceedings. It is the responsibility of each student to become acquainted with and to uphold the ideals set forth in the Honor System Constitution. More information about the Honor System including the constitution, bylaws, investigative procedures, and the penalty matrix can be found online at http://web.stevens.edu/honor/

The following pledge shall be written in full and signed by every student on all submitted work (including, but not limited to, homework, projects, lab reports, code, quizzes and exams) that is assigned by the course instructor. No work shall be graded unless the pledge is written in full and signed.

"I pledge my honor that I have abided by the Stevens Honor System."

Reporting Honor System Violations
Students who believe a violation of the Honor System has been committed should report it within ten business days of the suspected violation. Students have the option to remain anonymous and can report violations online at www.stevens.edu/honor.

Graduate Student Code of Academic Integrity

All Stevens graduate students promise to be fully truthful and avoid dishonesty, fraud, misrepresentation, and deceit of any type in relation to their academic work. A student's submission of work for academic credit indicates that the work is the student's own. All outside assistance must be acknowledged. Any student who violates this code or who knowingly assists another student in violating this code shall be subject to discipline.

All graduate students are bound to the Graduate Student Code of Academic Integrity by enrollment in graduate coursework at Stevens. It is the responsibility of each graduate student to understand and adhere to the Graduate Student Code of Academic Integrity. More information including types of violations, the process for handling perceived violations, and types of sanctions can be found at www.stevens.edu/provost/graduate-academics.

Special Provisions for Undergraduate Students in 500-level Courses

The general provisions of the Stevens Honor System do not apply fully to graduate courses, 500 level or otherwise. Any student who wishes to report an undergraduate for a violation in a 500-level course shall submit the report to the Honor Board following the protocol for undergraduate courses, and an investigation will be conducted following the same process for an appeal on false accusation described in Section 8.04 of the Bylaws of the Honor System. Any student who wishes to report a graduate student may submit the report to the Dean of Graduate Academics or to the Honor Board, who will refer the report to the Dean. The Honor Board Chairman will give the Dean of Graduate Academics weekly updates on the progress of any casework relating to 500-level courses. For more information about the scope, penalties, and procedures pertaining to undergraduate students in 500-level courses, see Section 9 of the Bylaws of the Honor System document, located on the Honor Board website.

LEARNING ACCOMODATIONS
Stevens Institute of Technology is dedicated to providing appropriate accommodations to students with documented disabilities. The Office of Disability Services (ODS) works with undergraduate and graduate students with learning disabilities, attention deficit-hyperactivity disorders, physical disabilities, sensory impairments, psychiatric disorders, and other such disabilities in order to help students achieve their academic and personal potential. They facilitate equal access to the educational programs and opportunities offered at Stevens and coordinate reasonable accommodations for eligible students. These services are designed to encourage independence and self-advocacy with support from the ODS staff. The ODS staff will facilitate the provision of accommodations on a case-by-case basis.

For more information about Disability Services and the process to receive accommodations, visit https://www.stevens.edu/office-disability-services. If you have any questions please contact: Phillip Gehman, the Director of Disability Services Coordinator at Stevens Institute of Technology at pgehman@stevens.edu or by phone 201-216-3748.

Disability Services Confidentiality Policy
Student Disability Files are kept separate from academic files and are stored in a secure location within the Office of Disability Services. The Family Educational Rights Privacy Act (FERPA, 20 U.S.C. 1232g; 34CFR, Part 99) regulates disclosure of disability documentation and records maintained by Stevens Disability Services. According to this act, prior written consent by the student is required before our Disability Services office may release disability documentation or records to anyone. An exception is made in unusual circumstances, such as the case of health and safety emergencies.

INCLUSIVITY
Name and Pronoun Usage
As this course includes group work and class discussion, it is vitally important for us to create an educational environment of inclusion and mutual respect. This includes the ability for all students to have their chosen gender pronoun(s) and chosen name affirmed. If the class roster does not align with your name and/or pronouns, please inform the instructor of the necessary changes.

Inclusion Statement
Stevens Institute of Technology believes that diversity and inclusiveness are essential to excellence in academic discourse and innovation. In this class, the perspective of people of all races, ethnicities, gender expressions and gender identities, religions, sexual orientations, disabilities, socioeconomic backgrounds, and nationalities will be respected and viewed as a resource and benefit throughout the semester. Suggestions to further diversify class materials and assignments are encouraged. If any course meetings conflict with your religious events, please do not hesitate to reach out to your instructor to make alternative arrangements.

You are expected to treat your instructor and all other participants in the course with courtesy and respect. Disrespectful conduct and harassing statements will not be tolerated and may result in disciplinary actions.

MENTAL HEALTH RESOURCES
Part of being successful in the classroom involves a focus on your whole self, including your mental health. While you are at Stevens, there are many resources to promote and support mental health. The Office of Counseling and Psychological Services (CAPS) offers free and

confidential services to all enrolled students who are struggling to cope with personal issues (e.g., difficulty adjusting to college or trouble managing stress) or psychological difficulties (e.g., anxiety and depression) and who can visit the office in person. CAPS is open from 9:00 am – 5:00 pm Mondays, Wednesdays, Thursdays and Fridays and from 9:00 am – 7:00 pm on Tuesdays during the Fall and Spring semesters; appointments are highly encouraged. For those students who cannot visit the Stevens campus for an in-person appointment, you can contact a local mental health care provider for an in-person appointment, or if you are enrolled in the Stevens Student Health Insurance, you may call Care Connect for 24/7 mental health support at 1-888-857-5462.

For further information please visit the CAPS webpage on [Seeking Help Off-Campus](#).

EMERGENCY INFORMATION
In the event of an urgent or emergent concern about the safety of yourself or someone else in the Stevens community, please immediately call the Stevens Campus Police at 201-216-5105 or on their emergency line at 201-216-3911. These phone lines are staffed 24/7, year round. For students who do not reside near the campus and require emergency support, please contact your local emergency response providers at 911 or via your local police precinct. Other 24/7 national resources for students dealing with mental health crises include the National Suicide Prevention Lifeline (1-800-273-8255) and the Crisis Text Line (text "Home" to 741-741). If you are concerned about the wellbeing of another Stevens student, and the matter is *not* urgent or time sensitive, please email the CARE Team at care@stevens.edu. A member of the CARE Team will respond to your concern as soon as possible.