SOCI 4183: Social Network Analysis – Methods and Examples

Spring 2024

CLASS INSTRUCTOR   Dr. Song Yang
Office Hours: Wednesday 4:30 to 5:00 pm or by Appointment
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PLACE AND TIME FOR THE CLASS

This is an in-person class. We will be meeting on Mondays and Wednesday from 3:05 to 4:20 pm @ Memorial Hall 253, starting on Jan. 16 (Tuesday), 2024 and ending on May 2 (Thursday), 2024. All class materials, such as lecture notes, and homework etc. will be on the class website

https://yangwang.hosted.uark.edu/soci4183/soci4183.htm

COURSE DESCRIPTION AND OBJECTIVES

      Social network analysis has been experiencing explosive growth recent years. Two reasons are behind such massive popularity of social network analysis. On the theoretical and methodological fronts, social network analysis draws interests from diverse fields, such as psychology, anthropology, sociology, criminal justice/criminology, and lately, political science, economics, and management sciences. In fact, network studies go beyond the "social," it has roots in physics, computer science/engineering, biology, information science, and food science. Such greatly multidisciplinary efforts enhance the network studies tremendously, and improve the fundamental research in network methods, theories, and its applications. Another reason lies in the popular application of network studies. We are living in a generation of facebook and twitter, which capitalize on the network way of thinking and socializing, and network technology. The two forces meet up with each other, creating a hugely unprecedented enthusiasm about the network studies.

      This course focuses on social network analysis (SNA), introducing fundamentals of SNA, and its applications in various social science fields. Upon completing this course, students should be able to comprehend the basic concepts and methods of SNA, and to apply them into their respective research studies.

REQUIRED TEXTBOOK

Yang, Song, Franziska B Keller, Lu Zheng, 2016, Social Network Analysis: Methods and Examples, SAGE Publications (ISBN-13: 978-1483325217) – available at U of A bookstore or online

Supplementary book

Knoke, David and Song Yang, 2020, Social Network Analysis, Sage (ISBN-13: 978-1506389318)

GRADING 1 – undergraduate students

The class contains tests and attendance credits. The following table shows the score distribution for the class.

SOCI4183

Test 1	30%
Test 2	30%
Test 3	30%
Attendance	10%
Total	100 %

The following chart converts raw scores to letter grade

A:	90% – 100%
B:	80% – 89%
C:	70% – 79%
D:	60% – 69%
F:	Below 60%

The grading will be based on absolute scale rather than a curve. Regular and active participation is the key to the success of the class. Notice that we do not have plus or minus signs in the grading system. All decimal places will be rounded up to its nearest integer value.

GRADING 2 – graduate students

This is an upper division course that occasionally draws registration from graduate students. The grading for graduate students is different from it for undergraduates – in addition to the requirements, which are stated above; graduate students need to complete a project assignment. The project component accounts for 40% of the total grades, the remaining 60% comes from the performance in the undergraduate grade component. If you are a graduate student, please contact me within the first two weeks of the class to discuss the details of the project component.

POLICIES

Incomplete will NOT be granted except for prior agreement with the instructor for some extreme situations.

Late Assignment will NOT be accepted except for prior consent from the instructors for some extreme cases.

Attendance is extremely crucial for this course. I will be awarding you 20 points (20% of your total grade) for your participation in our Friday meetings, which will be held ten times this semester (only applicable if this class is scheduled MWF).

However, I shall remind you that ***Good Classroom Conduct*** is indispensable to your completion of this course. ***Disruptive behaviors***, such as constant interruptions that interfere with classroom lecturing or presentations made by the instructor or other students, confrontational behaviors toward the instructor should be avoided by all means. I will be sending out warning note to those students exhibiting disruptive behaviors, inviting them for a personal meeting between me and the students for a solution to their disruptive behaviors. If the students refuse to participate in the meeting or after the meeting the behaviors are not corrected immediately, I will be deducing 10 points from their total grade and produce written document for such decision. The 10-point deduction could be exercised multiple times for those who repeatedly commit disruptive behaviors.

Academic Integrity is essential to completing your courses. Violations carry severe consequences; please consult the University of Arkansas webpage for the details (http://provost.uark.edu/245.php)

Exam Makeup will NOT be granted unless with prior consent from the instructor for some very rare situations. Students missing the test are given **one** opportunity to make up for the test and the makeup needs to happen within **two weeks** after the test. If student fails to show up for the makeup session, or the two-week grace time after the test expires, the test grade for the student will be entered as 0.

Email is the best way to contact me. I check my email many times a day, and normally respond your email within a couple of days.

Students with CEA request must request a meeting with me. The meeting is to discuss how to accommodate your needs. You can request such meeting any time during the semester. However, keep in mind that we must have such meeting before we can provide any CEA accommodations.

Being late to the class should be avoided by all means. I strongly recommend you NOT to come in to the class if you are more than 10 minutes late for the class. Repeated offenses to this are considered disruptive behaviors, and maybe subject to the point deduction (see the attendance policy).

I will determine the inclement weather, and send you a group-email before 7:30 am if I decide to cancel classes due to the inclement weather condition. If U of A issues an inclement weather in effect, our class is automatically cancelled.

Grade Disputes for SOCI4183 should be addressed directly to the instructor, Song Yang.

Grade release/notification is taking place at the classroom only during the class sessions. If you miss the classes when we hand back your homework or exams, you can stop by my office. Such policy applies during the semester and after the semester. As we will be having no classes after the semester, any inquiries about your grades will be handled through your personal visit to my office (223 Old Main). No need for scheduling appointment, I should be in my office morning 9:00 to 11:00 Monday through Friday. We will NOT be responding to your email or phone inquiries of your grades during and after the semester.

Good faith effort is expected, especially when students are called upon to resolve the disruptive behaviors. Those good faith efforts include, but not limited to, respectful behaviors to the instructor, responsible act by students to correct those disruptive behaviors or other issues that impede class lecturing and instructor's efforts to manage students. Violations to good faith efforts exemplify in rude/disrespectful treatment to the instructor, repeatedly dispute on the issues that were clarified by the instructor, excessive demand placed to the instructor to elucidate the issues that were clearly communicated with the students. Students exhibiting those "bad faith acts" after they receive the "disruptive behavior notice" are subject to 10-point deduction to their total grade.

The instructor holds the right to interpret those policy terms, and in addition….

EMERGENCY PROCEDURES

Many types of emergencies can occur on campus; instructions for specific emergencies such as severe weather, active shooter, or fire can be found at **emergency.uark.edu**.

Severe Weather (Tornado Warning):
- Follow the directions of the instructor or emergency personnel
- Seek shelter in the basement or interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside
- If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building
- Stay in the center of the room, away from exterior walls, windows, and doors

Violence / Active Shooter (CADD):
- **CALL-** 9-1-1
- **AVOID-** If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- **DENY-** Barricade the door with desk, chairs, bookcases or any items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it's safe.
- **DEFEND-** Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

CLASS SCHEDULE

WEEK January 15

No class on January 15 (Monday) in observance of MLK Day

Orientation to the class.

WEEK January 22

Yang, Franziska, and Lu: Chpt 1 – Basics of SNA (1)

Yang, Franziska, and Lu: Chpt 1 – Basics of SNA (2)

WEEK January 29

Yang, Franziska, and Lu: Chpt 1 – Basics of SNA (3)

Yang, Franziska, and Lu: Chpt 2 – Data collection (1)

WEEK February 5

Yang, Franziska, and Lu: Chpt 2 – Data collection (2)

Yang, Franziska, and Lu: Chpt 2 – Data collection (3)

WEEK February 12

Yang, Franziska, and Lu: Chpt 3 – Descriptive Analytics in SNA (1)

Yang, Franziska, and Lu: Chpt 3 – Descriptive Analytics in SNA (2)

WEEK February 19

Test 1 on February 19 (Monday) – Group 1 (A Group)

Test 1 on February 21 (Wednesday) – Group 2 (B Group)

WEEK February 26

Yang, Franziska, and Lu: Chpt 3 – Descriptive Analytics in SNA (3)

Yang, Franziska, and Lu: Chpt 4 – Inferential methods in SNA (a primer 1)

WEEK March 4

Yang, Franziska, and Lu: Chpt 4 – Inferential methods in SNA (a primer 2)

Yang, Franziska, and Lu: Chpt 5 – SNA of work and organizations (1)

WEEK March 11

Yang, Franziska, and Lu: Chpt 5 – SNA of work and organizations (2)

Yang, Franziska, and Lu: Chpt 5 – SNA of work and organizations (3)

WEEK March 18

Spring Break No Class

WEEK March 25

Yang, Franziska, and Lu: Chpt 6 – SNA of crime and terrorism (1)

Yang, Franziska, and Lu: Chpt 6 – SNA of crime and terrorism (2)

WEEK April 1

Test 2 on April 1 (Monday) – Group 1 (B Group)

Test 2 on April 3 (Wednesday) – Group 2 (A Group)

WEEK April 8

Yang, Franziska, and Lu: Chpt 6 – SNA of Public Health (1)

Yang, Franziska, and Lu: Chpt 6 – SNA of Public Health (2)

WEEK April 15

Yang, Franziska, and Lu: Chpt 7 – SNA of Political Network (1)

Yang, Franziska, and Lu: Chpt 7 – SNA of Political Network (2)

WEEK April 22

Ego-centric network: design and analysis

Ego-centric network: American Core Discussion Group

WEEK April 29

Class reviews and Q & A session

Lecture ends on May 2 (Thursday), 2024

WEEK May 6 (Final Exam Week)

Final exam is 3:00 – 5:00 pm on May 6 (Monday), 2024 in the classroom

Class ends