Organizational Communication Networks
17:194:534
Fall 2019

Instructor: Dr. Katherine Ognyanova
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Office: SDW 302 (Simeon De Witt Building, 185 College Ave.)
Office Hours: Tuesday 5:00pm-6:00pm and by appointment

Course Time: Tuesday, 6:20pm-9:00pm
Course Room: CI 101 (SC&I Building, 4 Huntington Street)
Course Website: sakai.rutgers.edu
Course Mailing List: mcm534-2019@sakai.rutgers.edu

Course Description
This course will cover theory, concepts, methods, and analysis for understanding and applying social networks to organizational contexts.

Learning Objectives
Upon the successful completion of this course, students should be able to:

- Use networks as a theoretical framework for research
- Use network analysis as a research technique (e.g., gather data, represent and analyze the data, identify relevant concepts, etc.)
- Explain how network concepts apply to theories or topics of interest
- Analyze relationships in terms of social networks and organizations
- Synthesize organizational and network theories and concepts
- Use software tools to manage network data and conduct network analysis
Required Readings

There is no required textbook for this class. All readings are available on the course’s Sakai website (sakai.rutgers.edu). Log in using your Rutgers NetID, navigate to the course site, and browse the Course Readings page. The reading materials for each week of class are also listed in the Course Outline section of this syllabus.

Required Software

Students are required to bring their laptops to class or coordinate with the instructor in the beginning of the term if they will need access to a school-provided laptop. This class includes hands-on network analysis exercises that will teach participants to recognize and interpret important concepts and metrics.

To complete the in-class and homework assignments, you need to register a free account at RStudio Cloud. There is no other software you need to install -- but the following programs are available to download for people who would like to have copies on their personal machines. The following software is free or has a free basic version for non-commercial use:

- **R**: powerful platform for data analysis. (cran.r-project.org)
- **RStudio**: a user-friendly interface for R (www.rstudio.com)
- **NodeXL**: Excel add-on for network analysis, Windows-only (smrfoundation.org/nodexl)
- **Gephi**: advanced software for network visualization (www.gephi.org)

Contact Information

Do not hesitate to contact me if you have questions, ideas, problems, or concerns related to this course. The most reliable way to reach me is by emailing katya.ognyanova@rutgers.edu. Please include “SCI 534” in the e-mail subject – that ensures I can identify your message as related to this class and give it appropriate attention.

My office hours are held in SDW 302 (Simeon De Witt Building, 185 College Ave), on Tuesday, 5pm-6pm. I encourage you to stop by for a chat at least once during the semester. If you are unable to meet during that time, you can email me, or come talk to me after class if you would like to schedule an appointment.

Course Attendance

You are expected to attend all classes. If you need to miss a class, use the Rutgers University absence reporting website (sims.rutgers.edu/ssra) to indicate the date and reason for your absence. The system will automatically send me an email. If you are unable to attend classes for longer than one week, you should contact a dean of students who can help verify your circumstances. University policy excuses absences due to religious observance or participation and permits students to make up work missed for that reason. You should notify me at least two weeks in advance if you are unable to come to class or take an exam due to religious observance.

On occasion, the university may have to cancel classes due to inclement weather. To check if classes are canceled, visit campusstatus.rutgers.edu or call 732-932-7799.
Course Requirements and Evaluation

Participation (200 points)
In this course, we will work together to review and examine critical key questions and themes related to the analysis of organizational networks. Much of the class will be discussion-based, with limited lecturing from me covering key points. Everyone is expected to be active in contributing to the conversations we will have in class. You should read all the required materials carefully and thoroughly, reflect critically on their strengths and weaknesses, identify their key points, and be prepared to discuss them. Not only the frequency, but also the quality of your contributions will be considered.

Reading reflection (200 points)
Each week after you complete the required readings, you should write a brief reflection on one or more of them and share it with the class. Your writing should demonstrate original thinking rather than simply provide a summary of the readings.

The assignment should be submitted by e-mail by the end of the day on Monday of each week. We will use a Sakai mailing list: send your reading reflections to mcm534-2019@sakai.rutgers.edu.

Each reading reflection should be at least 250 words long. If some of your classmates have shared their reading reflections before you submit yours, I encourage you to respond to the points they have made. At the end of your reading reflection, you should include:

1. At least one thoughtful question you have that was provoked by the readings.
2. At least one concept (a new term, new idea, a theory, or a finding) that you are interested in discussing further in class.

To get the full 200 points for these assignments, you need to submit on time at least 10 reading reflections (worth 20 points each) that show critical thinking about the theories and themes examined in this class. Emails will only contribute to the reading reflection grade if they are sent out by the end of the day on Monday of the respective week (so you cannot, for instance, send all of them in the last week of class).

Class assignments (250 points)
The class will include five hands-on assignments asking students to conduct network analysis and interpret the results. The assignments should be submitted using RStudio Cloud. For each assignment, students will be asked to analyze network data and answer questions about its structure and meaning. Submissions should include not only the analysis, but also an explanation of each step in the process as well as the final result.

Each assignment is due a week after it has been discussed in class. A complete and correct assignment that has been submitted on time will receive 50 points. Late assignments will receive a maximum of 40 points. The last day students can submit late assignments (which will incur the 10-point penalty) will be December 1.

You are welcome to discuss the assignments with classmates or ask for pointers from the instructor. Once you understand what needs to be done and how to do it, you have to complete each assignment on your own. Remember that consulting with peers is encouraged -- but copy-pasting other people’s work is considered a serious violation of academic integrity.
**Final group project (350 points)**

For the final project, students will work in groups of 3-5 people depending on class size. The groups will collect and analyze network data, write a final paper, and present it in class. Each group will read one of the other group’s papers and provide feedback on it. The final revised papers should be submitted through Sakai by **December 17**.

Each group will select one or more organizations and collect social media network data about them using tools covered in class. For example, you can focus on a news organization, identify journalists and editors on Twitter, and examine the structure of their network. Or, you can select a non-profit organization and study the network structure of the conversations on their Facebook page. Another example might be a study that looks at a large international corporation and compares the YouTube networks of its US and China subsidiaries. The readings assigned for this class will give you further ideas about appropriate topics and subjects.

Your research questions and/or hypothesis should build on network concepts and ideas discussed in class. You can focus on topics related to network structure, social tie formation, social capital, social contagion, knowledge transfer, etc. Groups should use network analytical tools and techniques to analyze their data, answer their research questions, or test their hypotheses.

**Components of the paper**

The final paper should contain the following sections:

1. **Introduction and theoretical background**, including a thorough overview of relevant research (going beyond just the articles we read in class).
2. **Research questions and hypotheses**. You should provide a strong theoretical justification for each hypothesis and discuss possible answers for the research questions based on previous studies.
3. **Method section**, including a detailed description of the data and the analytical procedures used to examine it.
4. **Results section**, outlining the findings of the study and describing how the analysis has answered the research questions and tested the hypotheses of the study. For each hypothesis, you should report whether it was supported or not.
5. **A conclusion** that summarizes the key findings and highlights their implications. In that section, you should also discuss potential challenges and limitations of the study, as well as directions for future research.
6. **A bibliography** containing the full list of references cited in the paper.

**Formatting and style requirements**

1. **Paper format**
   
   The final version of the paper should be double-spaced, using a 12-point font with a 1-inch margin on all sides. You do not need a title page, but you should include a title and the names of all authors. The paper should be at least 20 pages long.

2. **Writing quality and organization**
   
   The paper should be clearly and logically organized. The text should flow smoothly and demonstrate an excellent writing style. Be sure to carefully proofread each draft of your
paper and confirm that it is clearly written, grammatically correct, and free of spelling errors.

(3) **References and bibliography**

Each paper should include at least 20 citations to academic works. The citations and bibliography should be formatted in APA style (one place where you can learn more about it is the Purdue Online Writing Lab). You can use a free citation manager to store and format citations – I recommend www.zotero.com.

(4) **Use of sources and quotes**

Do not include long quotes in your paper. When you want to discuss someone else’s ideas, summarize them in your own words. Be sure to always give the author credit by adding a reference to their work.

You should **never copy and paste text from a paper, an online source, or a classmate’s work**. Read carefully, summarize, and name the source. Doing anything else can be considered a breach of academic integrity and have serious consequences. Note that the final papers will go through a plagiarism detection software. It highlights and records all such problems, which are then reported to the school.

**Schedule and submission**

The work on the final project will begin relatively early in the semester and there will be many chances to get feedback along the way. We will dedicate class time to discussing the projects, generating ideas, and troubleshooting problems. Key dates during the semester include:

- **Week 4, September 24**: Discussing teams and potential projects. After the discussion, each team should create a Google document and use it to brainstorm paper ideas. The links to those documents should be shared with everyone in class via the course mailing list.

- **Week 6, October 8**: Teams should have a preliminary idea about the project they want to pursue: the organizations, networks, and potential research questions. We will discuss those ideas in class, groups will receive feedback from the instructor and peers.

- **Week 8, October 22**: Teams should have a preliminary data collection strategy. We will discuss those in class, and (if needed) dedicate additional time to conducting preliminary data collection and evaluation.

- **Week 10, November 5**: Teams should have collected data and have a preliminary data analysis ready. We will discuss how the data analysis fits the theory, answers the research questions, and tests the hypotheses of the study.

- **Week 12, November 19**: Teams should have completed the first draft of their research papers. Each team will be assigned to read the paper of another group and provide thoughtful feedback on the theory, analysis, and results of the study.

- **Week 14, December 3**: Peer feedback due (through comments on Google docs).

- **Week 15, December 10**: Project presentations due in class. Each presentation should be 30 minutes long and provide a detailed overview of the project. You can use slides if you wish, but you do not have to turn them in. Each presentation will be followed by comments and questions from the instructor and class participants.
• **Week 16, December 17**: Final paper submission due. Each team should turn in a revised and polished version of their paper, clean of edits and comments. Those copies should be uploaded to Sakai by the end of the day on 12/18. Late papers will not be accepted.

**Grade Breakdown & Scale**

A and B grades in this course are reserved for outstanding work. To get a high grade, students need to participate actively in class, be thorough and careful in assignments, and demonstrate excellent understanding of the subject, critical thinking, and originality in their work.

The grade breakdown is as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class participation</td>
<td>200</td>
</tr>
<tr>
<td>Reading reflections</td>
<td>200</td>
</tr>
<tr>
<td>Class assignments</td>
<td>250</td>
</tr>
<tr>
<td><strong>Group project</strong></td>
<td></td>
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<tr>
<td>Final paper</td>
<td>250</td>
</tr>
<tr>
<td>Presentation</td>
<td>50</td>
</tr>
<tr>
<td>Peer feedback</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
</tr>
</tbody>
</table>

The final grade will be awarded according to the following scale:

- **A**: 900-1000 points
- **B+**: 850-899 points
- **B**: 800-849 points
- **C+**: 750-799 points
- **C**: 700-749 points
- **D**: 600-699 points
- **F**: Below 600 points

**Grade appeals**

You can appeal individual assignment grades in writing up to 5 days after the grades are announced. In order to be reviewed, your appeal has to be submitted over e-mail. If you have concerns about your course grade, schedule an appointment with me as early as possible during the semester to discuss it. Once the course grades are announced, they are final and will only be changed in case of an error in the computation of the student’s score.

**Academic Integrity**

You are required to complete your own assignments and always acknowledge the sources of contributions, materials, quotes, and ideas that you did not develop yourself. The consequences of scholastic dishonesty in this class and at Rutgers University in general are very serious. For more details, consult the University’s academic integrity policy. Any violation will at a minimum result in no credit earned for the assignment in question. Serious violations of academic integrity may prevent students from completing the course or their academic program.
If you have questions about issues related to plagiarism or academic integrity, do not hesitate to contact me.

**Accommodation**

This course will accommodate any student in need of assistance. Students with documented disabilities who need accommodations should contact the Rutgers Disabilities Services Office (see disabilityservices.rutgers.edu for details). You can also speak with a SC&I adviser by visiting the Office of Student Services in the SC&I Building, Room 214 or calling them at 848-932-7500 (dial 2 as your menu choice). Please contact me with information about the requested assistance and present your Letter of Accommodation as early in the semester as possible.

**Additional Resources**

The university offers a number of resources that you can access if needed:

- For additional tutoring, training, or **writing help**, visit the Rutgers Learning Center (online at rlc.rutgers.edu) and the Writing Center (plangere.rutgers.edu).
- If you need a consultation on **research materials** and ways to find them, you can contact the Rutgers University subject specialist librarian for communication.
- If you need help with **class schedule or registration**, visit the Student Services Office located in CI 214, and online at comminfo.rutgers.edu/student-services/contact-us.html.
- The SC&I IT Services can help you with various **technological problems**. You can find them in CI 120, by phone at 848-932-5555, or by email at help@comminfo.rutgers.edu.
- If you encounter **problems with Sakai**, you can contact the help desk at sakai@rutgers.edu or call them at 848 445 8721 between 8am-6pm on Monday through Friday.
- Student wellness services are available to you at Rutgers. You can contact CAPS for **mental health support** at rhscaps.rutgers.edu or by phone at 848 932 7884. Free and confidential peer counselling is available from Scarlet Listeners at 732 247 5555.
- The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling, and advocacy for victims of **sexual and relationship violence**. You can reach VPVA at vpva.rutgers.edu and 848 932 1181.
- The Office of Disability Services can be reached for help with accommodation and facilities for **students with disabilities** at ods.rutgers.edu, or by phone at 848 445 6800.
- On occasion, the university may have to **cancel classes** due to inclement weather. To check if classes are canceled, visit campusstatus.rutgers.edu or call 732-932-7799.
Course Outline

The course schedule is subject to change: materials may be added or replaced during the semester. If that happens, the changes will be reflected on Sakai and announced in class or over email.

Week 1 – September 3
Introductions, course and syllabus review

• Introduction to your instructor and classmates.
• Description of the course and overview of the covered material.
• Discussion of course policies, requirements, and student evaluation.
• Introduction to relevant research tools and information resources.
• Introduction to software platforms and their use for data analysis.

Week 2 – September 10
Foundations of organizational networks

Week 3 – September 17
Relationships and social capital


Week 4 – September 24
Tie formation mechanisms

Due: Discussion of groups and potential projects in class.


Week 5 – October 1

Global network structure


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Week 6 – October 8

Network data collection

**Due: Project idea (brief outline in Google doc, discussion in class)**


Week 7 – October 15

Network data visualization


Week 8 – October 22

Organizations and online networks

Due: Data collection strategy, discussion in class.


Week 9 – October 29

Tie strength and its consequences


Week 10 – November 5

Influence and social contagion

Due: Preliminary data analysis, share on RStudio Cloud and discuss in class.


Week 11 – November 12

Network perception and its outcomes


Week 12 – November 19

Network disruption and innovation

Guest lecture by Dr. Marya Doerfel. Readings for that week may change, so check Sakai!

Due: First draft of the paper completed.


Week 13 – November 26
Thanksgiving week – No class
Enjoy!

Week 14 – December 3
Networks and knowledge transfer

Due: Peer feedback (add as comments on the Google doc).


Week 15 – December 10
Project presentations

Week 16 – December 17
Final project due