### Course title
Social Network Analysis

### Coordinator(s)
Dr. Zuzana Sasovova

### Lecturer(s)
Dr. Zuzana Sasovova

### Study period
September 2019 – October 2019

### ECTS
6 ECTS

### Tuition
€ 600

### Target Groups
The course Social Network Analysis 2019-2020 is open to PhD candidates and research master students from the Vrije Universiteit Amsterdam and the Netherlands engaged in research projects broadly related to business administration or organization studies. This is an advanced methods course that assumes basic prior understanding of business administration topics or organization studies and basic understanding of quantitative business research methods. The course workload represents 6 ECTS. However, a smaller version of 3 ECTS is also possible.\(^1\)

### Course goals
After the successful completion of this course participants will be able to:

- Understand main social network theories and concepts
- Identify and describe different levels of analysis and formulate/solve research problems in terms of network variables
- Apply key concepts of social network analysis in a self-selected area of research to design own research project
- Use specialized software for network analysis (UCINET) to analyze and interpret research hypotheses

### Course Content
A network perspective on organizational and management questions continues to appeal to a wide range of research domains. These include organizational behavior, knowledge management, HRM, entrepreneurship, information systems, and many more. The diversity in theoretical approaches to network research has yielded diverse methodological approaches, analyzing both structural and relational dimensions of networks and networking in organizational settings. The focus of this course is on providing basic knowledge and understanding of network theories with an emphasis on social network analysis (SNA) applications in intra- and interorganizational processes. The course draws on conceptual and empirical research in these areas to investigate the antecedents and consequences of social networks – emergence and change in relationships and how network configurations influence important outcomes such as career progress, innovation and performance. In addition to being able to

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\(^1\) The ‘light’ version of this course excludes the final paper and presentation at the mini conference
critically review cutting-edge network research, participants develop a methodological basis that will allow them to design a network study in their own area of interest with a close attention to data collection, management and analysis issues. Finally, they will gain hands-on experience with specialized software for analyzing social networks (UCINET).

**Course Design**

The course is organized around five half day sessions in September and October 2019 one session with individual consultations and two individual assignments. Each of the first four sessions is dedicated to one aspect of network analysis, and will consist of two parts: a lecture including an interactive discussion in which the topic is introduced and an afternoon part in which participants work with Ucinet. Participants are expected to come well prepared to these sessions. For the first four sessions, they will be assigned as paper discussants (see the overview of articles per session below). The paper discussant has five to ten minutes to present the gist of the assigned paper, before launching the class discussion. Background reading (book chapters and reviews) are not necessary to study in detail, they contain additional information. The final session is organized in a form of a mini-conference in which participants present their research proposals and provide and receive comments from other participants.

There are two assignments, in the first (Ucinet) assignment participants analyze a provided dataset to explore the data, test hypotheses, interpret parameters, and report on the findings. This assignment is due on October 4. In the second assignment, participants apply social network analysis approach to develop a research proposal in a self-selected area of interest. This proposal includes a theoretical justification and research design outlining the major data collection, management and analysis issues. The first ideas can be discussed during the individual consultation sessions on September 27. The proposal will be presented during the mini-conference (last session of the course) and the final paper in the written format is due on November 1. In this way presenters will have an opportunity to benefit from others’ constructive feedback and will have almost two weeks to improve the paper before it is due. All participants are expected to complete these assignments individually. More information and evaluation criteria will be provided during the classes and on Canvas.
Form of tuition

The estimated time participants spend on study activities is:

Attending Lectures and Interactive Assignment Sessions  22 hours

Studying Literature  80 hours

Completing the Individual Assignments  66 hours

Total 168 hours (6 ECTS)

Assessment

Attendance and active participation in the sessions is mandatory.

Grading is based on the following partial grades:

30% class participation

20% Ucinet assignment

50% final paper and presentation

Course structure

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<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Room</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 6, 2019</td>
<td>10:00 - 12:00</td>
<td>12A-32</td>
<td>Network concepts</td>
</tr>
<tr>
<td></td>
<td>13:30 - 15:30</td>
<td>1G-23</td>
<td>Introduction to Ucinet</td>
</tr>
<tr>
<td>Sept 13, 2019</td>
<td>10:00 - 12:00</td>
<td>12A-32</td>
<td>Network theories</td>
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<tr>
<td></td>
<td>13:30 - 15:30</td>
<td>1G-28</td>
<td>Visualization</td>
</tr>
<tr>
<td>Sept 20, 2019</td>
<td>10:00 - 12:00</td>
<td>12A-32</td>
<td>Research design</td>
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<tr>
<td></td>
<td>13:30 - 15:30</td>
<td>1G-28</td>
<td>Hypothesis testing</td>
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<tr>
<td>Sept 27, 2019</td>
<td>Individual Consultations (Final Paper)</td>
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<tr>
<td>Oct 4, 2019</td>
<td><strong>UCINET ASSIGNMENT DUE</strong></td>
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<tr>
<td>Oct 11, 2019</td>
<td>10:00 - 12:00</td>
<td>1D-12 (Forum4)</td>
<td>Network change</td>
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<tr>
<td></td>
<td>13:30 - 15:30</td>
<td>1G-28</td>
<td>Modeling change</td>
</tr>
<tr>
<td>Oct 18, 2019</td>
<td>11:00 – 15:00</td>
<td>2A-37</td>
<td>Mini-conference</td>
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<tr>
<td>Nov 1, 2019</td>
<td><strong>FINAL PAPER DUE</strong></td>
<td></td>
<td></td>
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Note: all rooms are in the VU main building (De Boelelaan 1105); G-wing: turn left from the main entrance, pass the elevators and turn right; D-wing: take the stairs on the right to the 1st floor, pass the aula on your right

**UCINET software**


Website: https://sites.google.com/site/ucinetsoftware/home

90 days free trial afterwards a student price of $40

**Literature**

**Books**


**Session 1 Network concepts**

**Background reading**

Kilduff & Tsai (2003) Chapters 1 and 2 – introduction and network concepts

**Reviews**


**Articles**


Introduction to Ucinet
Background reading Borgatti, Everett & Johnson (2013) Chapter 5 – data management

Session 2 Network theories
Background reading
Kilduff & Tsai (2003) Chapters 3 and 4 – network theories

Articles


Visualization in Ucinet
Background reading
Borgatti, Everett & Johnson (2013) Chapter 7 – visualization

Session 3 Research design
Background reading
Borgatti, Everett & Johnson (2013) Chapters 3 and 4 – research design and data collection

Articles


Hypothesis testing in Ucinet
Background reading Borgatti, Everett & Johnson (2013) Chapter 8 – testing hypotheses

Session 4 Network change
Background reading
Kilduff & Tsai (2003) Chapter 5 – network trajectories

Articles


Modeling network change in Ucinet and beyond
Background reading