EEH044F, Network analysis for economic historians, 7.5 credits

Nätverksanalys för ekonomisk-historiker, 7,5 högskolepoäng

Third cycle / Doktorandkurs

Details of approval

The syllabus was approved by The Board of the Department of Economic History on 2022-11-08 to be valid from spring semester 2023.

General Information

This is an optional course in the PhD programme.

Language of instruction: English

Main field of studies: Economic History

Learning outcomes

The student will acquire knowledge of the field of network analysis, both in terms of theories and models for concrete use, programming and structuring of network data.

The student will gain knowledge in classic and pioneering literature in the field. The student will also acquire knowledge about programming, modeling and visualization of network data.

More specifically, students will be able to:

Knowledge and understanding

- Demonstrate knowledge of central concepts and measures in the field of network analysis, for example communities and degree distributions
- Demonstrate knowledge of well-known theories and models in the field of network analysis and diffusion models

Competence and skills

- Apply statistical methods and software to analyze complex networks

- Account for and independently use different methods and techniques to handle empirical data and data about networks in economic history
- Conduct independent research work based on network analysis
- Present results from own research in speech and in writing

Judgement and approach

- Discuss and critically evaluate core terminology and theories within the field of network analysis and diffusion models
- Critically evaluate results from network analytical models applied to empirical data
- Discuss and critically evaluate theoretically and empirically well-founded analyzes of the course's various themes

Course content

This course introduces the subject of network analysis and statistical methods for analyzing historical and contemporary large networks. The course contains four themes: i) a broader introduction to the field of network analysis and complex systems, ii) basic concepts, including centrality and degree distribution, iii) cluster analysis (community detection analysis), and iv) network dynamics (evolution, diffusion, link prediction).

Course design

Part of the course is based on lectures that introduce basic concepts. On other occasions, students are allowed to solve well-defined problems together during class time.
The course ends with the writing of a paper that applies network analysis to concrete network data and discusses the method and results. This paper is presented and discussed within the group.

Assessment

Grading is based on individual performance both orally and in writing. Grading is continuous throughout the course. The greatest weight is given to the final paper.

The University views plagiarism very seriously and will take disciplinary actions against students for any kind of attempted malpractice in examinations and assessments. The penalty that may be imposed for this, and other unfair practices in examinations or assessments, includes suspension from the University.

Grades

Marking scale: Fail or Pass.

Entry requirements

PhD students applying for this course should have at least 60 credit points in either economic history, business administration, economic and social geography, economics, history, sociology or the equivalent knowledge.

Further information