

Spring 2014 | Wed., 9am-12noon | Classroom: Harkness 112

# PSC 502/582: Political and Economic Networks

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## General Information

This course will cover a growing field of political and economic networks. Social networks pervade political and economic life. They shape how we organize political and economic life, how we discover job opportunities, and how we learn. The multitude of ways that networks affect the world make it critical to understand how network structures impact behavior, which network structures are likely to emerge, and why we organize ourselves as we do. Drawing on a wide variety of fields, this course will review the literature on both theoretical and empirical networks. Topics will include basic network structures, network formation, games on networks, learning, diffusion, and methods for network analysis.

The first few weeks of the class will review many basic concepts in the theoretical and statistical literature on networks, which Avi and Matt will teach from handouts. During the early phase of the class, we will assign problem sets almost every week. After we finish the initial introductory material in the first few weeks, we will begin student presentations of papers. Each student will present two papers throughout the term. For

one of the presentations, you will choose a paper from the assigned list (which we will circulate as the term goes on). For the other presentation, you will be free to choose a paper not on the syllabus, subject to the approval of the instructors. We will expect high quality presentations. At the end of the term, you will submit a short research paper that applies the techniques (either theoretical or empirical) from the class to a substantive question or develops methodological or theoretical improvements to the existing literature.

## Readings

There will be readings each class, and we will provide a list of readings throughout the term so that you know what to read for a given class. For the first few weeks, we will rely on *Scientific Work Ethic* by Steve Weber, *Logic of Mathematics* by Jacques Jouanolle, or, to lesser extent, on *Statistical Analysis of Network Data* by Eric Kolaczyk. The latter of these is available as a free PDF online.

## Grading

- weekly homework assignments (40% of final grade)
- presentations (30% of final grade)
- final paper (30% of final grade).