OBJECTIVES
This course is an introduction to social choice theory and game theory with specific applications to politics. In particular, we will focus on non-cooperative game theory which allows us to analyze abstract strategic situations between rational actors. While there are no prerequisites for the course, basic knowledge of set theory, logic, and calculus will be beneficial.

There are two main sections to the course. The first part will take a brief look at social choice theory. The second part, and a majority of the course, will be devoted to understanding the basics of game theory, including Nash equilibrium, perfect and imperfect information games, and repeated games.

READING MATERIAL
Class readings will be drawn from one main source:


Additional supplemental sources include:


For mathematics background:


**Requirements**

It is important to keep up with class readings and you should generally aim to complete the weekly readings before we start a new topic. In addition to the readings, you will also be responsible for the following:

1. **Problem Sets**: *(4 combine for 50% of your final grade)*
2. **Final**: *(worth 50% of your final grade)*

You will generally have a week to complete the problems sets. Students can work in groups, but should not turn in identical assignments. The **take-home final** is given out on **Thursday, December 12, 2013**, and due back 24 hours later.

**Class Schedule**

**Topic 1**: Introduction to Rational Choice & Social Choice Theory

**Topic 2**: Nash Equilibrium & Strategic Games with Perfect Information  
Osborne: Chapters 2-4

**Topic 3**: Extensive Games with Perfect Information  
Osborne: Chapters 5-7

**Topic 4**: Extensive Games with Imperfect Information  
Osborne: Chapter 10

**Topic 5**: Signaling Games  
Osborne: Chapter 10

**Topic 6**: Repeated Games  
Osborne: Chapters 14-15

**Topic 7**: Bargaining Games  
Osborne: Chapter 16