Course description:

This class will serve as a basic introduction to game theory and how it can be used to understand politics. The goal of the class is to develop the skills and perspectives necessary to identify opportunities for strategic behavior by political actors, to distill these strategic opportunities into simple game-theoretic models and to solve for the equilibrium of these models. We will focus on different types of models that are frequently observed in political science: the prisoner’s dilemma, collective action, imperfect information and spatial models. While the objective of the course is not to teach mathematics, the ability to manipulate algebraic expressions is assumed (note that familiarity with calculus is not required) and will make the course much easier.

Grades will be based on performance in four areas: problem sets which will be assigned on a bi-weekly basis, points accumulated over the semester from a series of games, an in-class midterm examination and an in-class final examination. Students are free to work together on the problem sets, but must turn in their own write-up of the answers. The best way to learn the material is by solving problems, so merely copying down others’ answers is not recommended. Homework will be due at the beginning of class. Late homework will have points deducted unless prior arrangements are made.

Books:

There is one book for the class, which will be available at Iowa Book and Supply:

Course Requirements:

Your grade will be based on four components.

1. Bi-weekly homework assignments (35%). There will be four to six of these.

2. Points received from a series of games conducted in class (10%). Over the course of the semester you will be required to participate in a series games based on the material covered in class. Points will awarded according to outcomes and will accumulate over the semester. These games will be announced and played in class – if you miss one, you will not receive any points.

3. An in-class, closed-book midterm examination, date TBA, but probably March 11th (25%).

4. An in-class, closed-book final (comprehensive) examination (30%), scheduled during the class’ regular exam period.

General Topics to be Covered:

1. Introduction to Expected Utility Theory.
2. Sequential Move Games.
3. Simultaneous Move Games.
5. Subgame Perfect Equilibrium.
6. Agenda Setting.
7. Spatial Models.
8. Signaling Games.

Policy on Late Assignments:

Late homework will have points deducted at the rate of three per day (including weekends) up to seven days, after which they will not be accepted. Special exceptions should be discussed and made in advance. Exams will also not be excused or rescheduled without prior arrangements.

Other Information:

Please visit the Political Science Department’s Website at http://www.uiowa.edu/~polisci. It is frequently updated regarding events and procedures in our department, changes in the Schedule of Courses, plus TA and faculty hours when available. You may also find current information on pre-advising, and registration. Our Vernon Van Dyke Computing
Facility (Political Science ITC) is located in Room 21 Schaeffer Hall. Available hours are listed at our website and also posted outside Room 21 Schaeffer.