



LAWRENCE UNIVERSITY
APPLETON, WISCONSIN 54912
SOCIAL CHOICE THEORY (ECON495)
SPRING 2007
ÁDÁM GALAMBOS

Syllabus

Meeting time: MW 3:10 – 4:20 and R 2:30 – 3:40

Room: Briggs 217

Instructor: Ádám Galambos, Briggs 207, 832-6667, adam.galambos@lawrence.edu

Office hours: By appointment.

Class homepage: On Moodle

Course description

Social choice theory is about collective choice: how the different preferences of a group of people could or should be reconciled to produce a collective decision. Examples of such collective choices abound: a country deciding on a president, a town deciding what to spend money on, the Econ Club deciding what speaker to invite, siblings deciding how to divide a pizza (or an inheritance), a jury deciding on a verdict, etc. A common way of reconciling individual preferences into a collective choice is through voting, and a substantial part of the course will be devoted to understanding and evaluating different voting methods (the most common example is majority rule). The most famous theorem in Social Choice is Arrow's Impossibility Theorem, which some have interpreted as a demonstration that no satisfactory democratic method exists to make collective choices (the key is, of course, what we mean by satisfactory). We will study forms of this theorem. Specifically, we will study how it applies (or does it?) in economic contexts. Instead of looking at social choices generally, here we will look at dividing the resources available in an economy among the consumers. Social choice theory is powerful because it studies collective choice in a formal, mathematical framework. Accordingly, we will use mathematical models in the class. Having a level of mathematical sophistication that one might get from calculus and Intermediate Microeconomic Theory will be necessary to succeed in the class (the algebra or analysis course would also give very useful background for the course).

Readings

The required book for the course is *A Primer on Social Choice Theory* by Wulf Gaertner. We will not cover the entire book, and there will be readings from other sources as well. I will make those readings available on Moodle or as handouts. Several books that are particularly useful for this course will be on reserve in the Library:

Alan D. Taylor: *Mathematics and Politics*, Springer-Verlag, 1995. [A very non-technical book on basic topics in social choice and game theory.]

David M. Farrell: *Electoral Systems*, Palgrave, 2001. [Also non-technical, a comparative analysis of voting systems in the world.]

Dennis C. Mueller: *Public Choice III*, Cambridge University Press, 2003. [The most comprehensive (but thorough) survey of topics related to public choice.]

How to succeed in this class

Classes will be a combination of lecture, problem-solving and discussion. It is very important that you come to class and participate in problem-solving activities. The burden of out-of-classroom preparation will be substantially reduced by coming to class prepared and participating actively. Understanding assigned readings, the homework and exam problems will be essential to success. The material builds up cumulatively, so if anything is unclear to you at any time, make sure you ask for clarification promptly.

Grading Policies

A total of 100 points may be earned in the course. Each of the eight problem sets will be worth 8 points. The midterm and final exam will each be worth 18 points. The total number of points earned in the course will determine each student's final grade according to the following scale:

92-100	A
90-91	A-
88-89	B+
82-87	B
80-81	B-
78-79	C+
72-77	C
70-71	C-
68-69	D+
62-67	D
60-61	D-
-59	F

I reserve the right to revise this scale downwards by uniformly increasing the band for each grade.

In addition, the grading policies in this course may be changed by a unanimous secret ballot vote of approval of *all registered students and the instructor*, subject to the following proviso: the weight of an exam or assignment in the course may only be changed until 10 days prior to its due date, as indicated in the attached course outline.

Homework Policies

Starting with the second week, there will be a problem set due or an exam each week. Problem sets will be due at the beginning of class on the due date. Late problem sets will be subject to a penalty of 2 points on the due date, and 1 point per day thereafter. If you are prevented from submitting your problem set on time due to an unforeseen and

documented circumstance, please contact me. Writing clearly and neatly is especially important in a course based on clear, logical and often formal arguments. While you are not required to type problem sets and exams, all work that I find too difficult to read will likely be ignored in grading.

Honor Code

As with all classes at Lawrence University, the Honor Code applies to all activities related to this class. Please reaffirm the Honor Code on all written work.

I hope you will enjoy the class, and please contact me with any questions or concerns.

Preliminary outline

Week	Topic
1	<i>Majority voting</i>
2	<i>Escaping cycles; Other voting systems</i> Problem Set 1 due on 4/4
3	<i>Arrow's Theorem</i> Problem Set 2 due on 4/11
4	<i>Modeling rights; Manipulability</i> Problem Set 3 due on 4/18
5	<i>Manipulability</i> Optional midterm review on 4/25 Midterm exam on 4/26, 2:30–4:30
6	<i>Economic Domains</i> Problem Set 4 due on 5/2
7	<i>Coalitions, the Shapley value, power indices</i> Problem Set 5 due on 5/9
8	<i>Distributive justice</i> Problem Set 6 due on 5/16
9	<i>Bargaining and fair division</i> Problem Set 7 due on 5/23
10	<i>Empirical social choice</i> Problem Set 8 due on 5/30
11	Final exam date to be arranged