Objectives and Requirements

The purpose of Res Ec 712 is to extend your knowledge of applied microeconomic theory to include introductions to game theory, welfare economics, externalities and public goods and the economics of information.

There will be three exams and a number of problem sets. Each exam will account for nearly one-third of your course grade. They will be scheduled to break up the semester into thirds and will be held outside of normal class time. A small percentage of your grade will be determined by your participation in class. At a minimum I expect each of you to attend every class prepared to discuss the assigned readings. Finally, each completed problem set will be assigned a grade of “Pass” or “Fail”. Too many “Fails” will result in a reduction of your final grade by one full letter grade.

Most of the reading for this course will come from the following sources:


I will provide copies of all the readings on the course MOODLE page. My lectures are also available on MOODLE. I suggest that you download these and bring the sections to class that we will be discussing that day.

In addition to the required readings, you may find it helpful to read an intermediate micro text as we move through the course. You will also need to review your notes from Econ 751 and ResEc 711, because we will use many of the techniques and results that you learned in those courses.
Outline and Reading List

I. Introduction to Noncooperative Game Theory
   Stranlund, Lecture 4
   Complete information games in normal (strategic) form
      Gibbons Chapter 1
   Complete information games in extensive form
      Gibbons Chapter 2
   Static games of incomplete information
      Gibbons Chapter 3

II. Welfare Economics
    Stranlund, Lecture 3
    Pareto efficiency, core allocations, and competitive exchange
       Feldman Chapters 2 and 3
       Varian Sections 17.1 to 17.3 and 17.6 to 17.9
    The welfare theorems with production
       Feldman Chapter 4,
    The compensation criterion
       Feldman Chapter 7, Varian Sections 22.1 and 22.2

III. Externalities and Public Goods
     Stranlund, Lecture 6
     Externalities
        Varian Chapter 24, Feldman Chapter 5
     Public goods
        Varian Chapter 23, Feldman Chapter 6

IV. Asymmetric Information: The Principal–Agent Problem
    Stranlund, Lecture 7
    Contracts under asymmetric information: The principal-agent problem
       Silberberg and Suen Chapter 15
       Varian Chapter 25
    Markets with imperfect information
       Silberberg and Suen Chapter 16

Academic Honesty

While you are free to discuss assignments with your colleagues, I expect the writing and reasoning in your work to be your own. If I find that you have cheated on a problem set or an exam, I will pursue the matter to the fullest extent possible under the procedures outlined in the UMass-Amherst Academic Honesty Policy and Procedures http://www.umass.edu/honesty/.