

**Economics 8433**  
**Topics in Empirical International Trade**  
**Spring 2006, TR 930-10:45**

Professor Jim Markusen  
Econ 216  
303-492-0748  
[james.markusen@colorado.edu](mailto:james.markusen@colorado.edu)  
Hours:

Professor Keith Maskus  
Econ 210A  
303-492-7588  
[keith.maskus@colorado.edu](mailto:keith.maskus@colorado.edu)  
Hours: M 3:00-5:00, T 11:00-12:00

**Course Objectives**

There are two objectives of this course. The first is to undertake a systematic study of the central current literature in empirical international trade. This portion of the course will consist of four weeks of lectures and discussion of the papers listed in the first part of the reading list below, along with a written take-home examination. Students will be required to read these papers carefully and participate in classroom discussion.

The second objective is for students to master the essential aspects of computational general equilibrium (CGE) modeling as it is applied to problems in international trade and foreign direct investment. Regarding the second objective, students will be expected to master techniques for constructing applied (numerical) general-equilibrium models and using them for policy simulations.

**Course Activities**

Essentially because of travel commitments, the course will be divided as follows. The first two weeks of term (January 17-26) and the two weeks (March 14-23) before spring break will be devoted to discussing econometric studies of trade determinants. These sessions will be led by Maskus. The remaining 11 weeks will be devoted to working on CGE models and these sessions will be led by Markusen.

**General Readings on Empirical Trade:**

Though they are not required, three books that would be useful acquisitions for your trade library are the following.

Bowen, Hollander, and Viaene (BHV), *Applied International Trade Analysis* (U. of Michigan Press, 1998).

Feenstra, *Advanced International Trade* (Princeton University Press, 2004).

Francois and Reinert, *Applied Methods for Trade Policy Analysis: A Handbook* (Cambridge U. Press, 1997).



ON MARCH 23 I WILL HAND OUT A TAKE-HOME EXAMINATION ON ALL OF THE ABOVE MATERIAL. IT WILL BE DUE IN MY OFFICE AT 5:00 ON APRIL 4.

*Part two: Introduction to GAMS and Applied General-Equilibrium Modeling (Markusen)*

Readings will be available on the department web site under "econ8433"

I will not provide a detailed tutorial on GAMS notation and syntax. For these you can consult the GAMS web site: [www.gams.com](http://www.gams.com). Click on documentation, and then on GAMS - A User's Guide. This will give you a lot of the basics you need to know. Unfortunately, this guide is badly out of date and focuses entirely on optimization problems, whereas applied GE modeling generally involves solving square systems of equations and inequalities. But the user's guide will give you the syntax and notation as I indicated. Try going through chapters 2 and 3 before continuing with this tutorial. Hopefully, sometime soon we will try to rewrite the user's guide.

I will provide a disk for those who have a laptop. GAMS is also available on the computers in the grad lab.

The following gives an approximate schedule of the course.

January 31

Installation of GAMS on laptops, accessing and running GAMS in the grad computer lab

February 2

Introduction to GAMS part1 (found on web site)

February 7, 9

Introduction to GAMS part 2 (found on web site)

February 14, 16

Chapter 1: General-Equilibrium Modeling using GAMS and MPS/GE: Some Basics (found on web site)

February 21, 23

Chapter 2: Extensions of the Simple Model (found on web site)

February 28, March 7, 9

Chapter 3: Taxes, Tax Reform, Public Goods, and Steady-State Models;  
Introduces Auxiliary Variables, Constraints, and Rationing (found  
on web site)

April 4, 6, 11

Calibration of models to real data via input-output tables, etc. Readings to  
be announced

Chapter 4: Open Economy models(found on web site)

April 13, 18

Chapter 5: Monopoly, Oligopoly and Increasing Returns (found on web site)

April 20, 25

Chapter 6: External Economies and Monopolistic Competition(found on web  
site)

Assessment for the class will be (A) in the form of exercises, (B) each student will do a  
project, in which an economic problem is calibrated to a numerical model and simulated.

Sergey Makarevich will be helping with the course and will hold office hours to help you  
with problems.

### **Special Accommodations Policy**

If you have specific physical, psychiatric, or learning disabilities and require  
accommodations, let me know early in the semester so that your needs may be  
appropriately met. You will need to provide documentation of your disability to the  
Disability Services Office in Willard 322 (telephone 303-492-8671)