This course introduces PhD and well-prepared MA students to micro-economic models and methods useful in policy evaluation and research. Pre-requisites include core courses in microeconomics and statistics/econometrics, as well as a good understanding of differential calculus which will be relied on throughout the course; integral calculus will be used more sparingly. Relevant theory will be presented and discussed, but the course will emphasize what most policy economists do: applied research that tests or calibrates theories, that evaluates the impact of institutions and policies, or that simply attempts to provide careful description of important policy-relevant phenomena. The learning objectives also include critical understanding of structural economic models and program evaluation methods.

The assignments for the course are designed not only to further understanding of topics in micro-economic analysis but also to develop students’ abilities as policy researchers. In addition to a final exam, there are two (possibly linked) writing assignments: a referee report and an optional term paper. The referee report is a short analysis of an empirical micro-economics paper describing its contribution to existing research and making criticisms and suggestions for improvement, and the replication project involves reproducing the analysis in some (possibly the same) paper. The paper to be refereed must be chosen by Sept 25 and the referee report is due October 10.

The optional term project may take two forms. The first is a research replication, with modifications designed to test the robustness of the original results. The second is a careful summary of existing research on a specific question. A research prospectus for these should be submitted by October 23 (by email), and the term project is due December 4. The prospectus and term paper should be presented to the class. Organizing the assignments this way provides an opportunity to explore some area of interest more deeply, to carry out empirical research using microdata, and to experience the process of designing, implementing, and writing a research paper. Students are strongly encouraged to choose the research replication. More details on these writing assignments will be available shortly.

There are two grading options. Option 1 is based on the final exam (80%), referee report (10%), and quality of class participation (10%). Option 2 includes the term project, and the exam score counts for 40%, the referee report 10%, class participation 10%, the prospectus 5%, and the term paper 35%. The final exam will be given during the normal exam period in May on a date assigned by the University. The final exam under Option 2 will consist of about half as many questions as under Option 1, permitting a choice to encourage students to pursue areas of interest in greater depth.
Outline of Topics (preliminary)

This list of topics (as well as the list of readings) is far too long to be covered in a single semester. We will cover several of these with certainty and the others with probabilities proportional to the extent of student interest. Measures of interest include choice of papers for referee reports and term papers and direct expressions of interest from students.

1. Research Approaches and Methods in Micro-Economics
2. Neo-classical theory of the firm
   a. The neo-classical model of profit maximization
   b. Testing the empirical predictions of the model
   c. Demand elasticities
   d. Minimum wage
   e. Payroll tax incidence
   f. Job creation policies
   g. Heterogeneous Labor Demand
3. Adjustment costs, industry dynamics, and reallocation
   a. Dynamic factor demand
   b. Entry and exit
   c. Job reallocation
   d. Policies and frictions
4. Productivity
   a. Differentials and determinants
   b. Dispersion within industries
   c. Dynamics
5. Labor supply (application of consumer theory)
   a. Individual: static and dynamic
   b. Family decision-making
   c. Behavioral approaches
   d. Evaluating social insurance and social assistance programs
6. Institutions and interactions
   a. Trade unions
   b. Social interactions and network externalities
7. Labor Supply Shocks
   a. Immigration impacts on native workers
   b. Baby booms and abortions
8. Human capital
   a. Education, training, and earnings
   b. Specific capital and matching
   c. Estimation
9. Inequality
   a. Measurement
   b. Decompositions
c. Skill-Biased Technical Change, International Trade, and Institutions

10. Mobility
   a. Search theory
   b. Job-to-job mobility
   c. Migration and immigration decisions

11. Unemployment
   a. Labor force dynamics
   b. Unemployment insurance and unemployment duration
   c. Training and other “active” labor market programs

12. Discrimination
   a. Theories
   b. Measurement

Reading list (preliminary)
For review of mathematical concepts, please consult Fundamental Methods of Mathematical Economics, by Alpha C. Chang (McGraw Hill), or a similar textbook. For review of economic theory, see the graduate texts by Varian or Mas-Colell, Whinston, and Green. For econometrics, see the following:

The reading list below serves several functions: it includes literature reviews (typically books, Handbook chapters, and Journal of Economic Perspectives or Journal of Economic Literature articles), “classic” works that any professional policy economist should be familiar with, and articles that illustrate certain pedagogical points for this course. Essential ("required") readings are indicated with an asterisk, and additional papers are supplied as suggestions both for the replication projects and for further reading on topics of particular student interest. These additional papers may be referred to sometimes in lectures. Articles and even book chapters are readily available on the web, including through library.gmu.edu.

1. Research Approaches and Methods


2. **Neoclassical Theory of the Firm**

*Chapter on theory of the firm in Varian (Chapter 1 in my old edition) or other graduate textbook.*


3. **Adjustment Costs, Industry Dynamics, and Reallocation**


4. Trade Unions


5. Heterogeneous Labor Demand


6. Immigration and Cohort Effects


7. Wage Inequality and Skill-Biased Technical Change


8. Individual Consumer Demand and Labor Supply

*Chapter on theory of the consumer in Varian or other graduate textbook.


9. Behavioral Approaches to Labor Supply


10. Social Interactions


11. Job Search and Unemployment


12. Specific Capital, Matching, and Mobility


### 13. Education, Training, and Earnings


### 14. Discrimination


