### Non-Market Valuation

This course will cover non-market valuation techniques typically used to measure the value of local public goods and (dis)amenities. These techniques are used to determine the “benefits” side in a cost-benefit analysis and are central to the formulation of regulatory policy in the U.S.. In addition, they play an important role in local public finance, urban and environmental economic analysis. Papers will be both theoretical and applied. Applications will focus on questions in public finance, urban and environmental economics, with a strong focus on the latter.

**Instructor:** Christopher Timmins  
**Schedule:** MW 8:30 - 9:45  
**Dates:** 8/17/2020 - 11/16/20

### International Trade

This is a semester-long course in International Trade. The objective of the course is to introduce students to current research topics on International Trade as well as the tools and methodologies that are prevalent in the field.

**Instructors:** Rafael Dix-Carneiro, Daniel Xu  
**Schedule:** TTH 1:45 - 3:00  
**Dates:** 8/17/2020 - 11/16/20

### Partial ID: Theory and Applications in Industrial Organization

Focus on the use of partially identifying models for applications in industrial organization, investigating a mix of methodological, theoretical, econometric and applied issues. Particular areas of application in the IO literature will comprise a selection of research employing various models of auctions, entry, matching, and demand estimation. For each area of application, we will cover both the econometric theory underlying the partial identification analysis employed, as well as the motivation for the use of the partially identifying model in empirical practice.

**Instructors:** Allan Collard-Wexler, Adam Rosen  
**Schedule:** TTH 10:15 - 11:30  
**Dates:** 8/17/2020 - 11/16/20

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### Development Economics II

**Instructor:** Erica Field  
**Schedule:** F 8:45 - 11:15  
**Dates:** 10/2/2020 - 11/16/20

### Intra Household Distribution

**Instructor:** Marjorie McElroy  
**Schedule:** MW 12:00 - 1:15  
**Dates:** 8/17/2020 - 9/23/20

### Apps In Labor and Family Economics

**Instructor:** Marjorie McElroy  
**Schedule:** MW 12:00 - 1:15  
**Dates:** 9/28/2020 - 11/16/20

### Expectations & Macroeconomics

This module covers some recent advances in the macroeconomics literature on ambiguity/robust control, which departs from rational expectations modeling and Bayesian learning. Here we study, based on decision theoretical foundations(ambiguity aversion), how agents faced with model uncertainty act on robust decision rules. We will review the main concepts of ambiguity/robust control and we will cover some of its applications to asset pricing, business cycles and optimal policy.

**Instructor:** Cosmin Ilut  
**Schedule:** MW 5:15 - 6:30  
**Dates:** 9/28/2020 - 11/16/20

### Heterogeneous Agent Macro

**Instructor:** Andrea Lanteri  
**Schedule:** Th 5:15 - 7:45  
**Dates:** 8/20/2020 - 9/24/20
882.14 Special Topics in Macro

Empirical Macroeconomics

Kehrig, Matthias

M 5:15 - 7:45 8/17/20 - 9/25/20

This module also has an online option during the same meeting pattern.

This course sets you up with the models and tools used in modern macroeconomics. The first part of the course covers standard heterogeneous-agent macro models, including solution methods, the effect of standard real and financial frictions and general equilibrium forces. The second half of the course covers empirical patterns of firm dynamics, reallocation and the quantitative (in)significance of micro-level heterogeneity for macroeconomic outcomes. Assessment will consist of (computational) homeworks, a take-home exam and student presentations.

This course builds on Prof. Lanteri’s course “Macroeconomics with heterogeneous agents” in that it complements his theoretical and quantitative tools with empirical analysis and leading students on to research projects.

883.03 Topics in Econometrics

Causal Inference and Treatment Effects

Maurel, Arnaud

TTH 5:15 - 6:30 9/29/20 - 11/16/20

This module will cover the econometrics of treatment effects. The emphasis will be on the identification of treatment effects parameters, as well as on inference methods. We will discuss the standard methods used in the literature to evaluate social programs, including matching, instrumental variables, control function and panel data methods. We will pay special attention to the identifying assumptions underlying these different methods, which will be analyzed from a statistical and behavioral viewpoint. We will also examine some of the most recent methods allowing to draw inference on the distribution of treatment effects.

Validation of the course will be based on the presentation and discussion of a research paper, and on the production of a short research proposal (less than 5 pages). The proposed project may consist of an extension of one of the methods discussed in class, a new application to a specific economic question, or both.

883.05 Topics in Econometrics

Econometrics III - Part 1

Masten, Matt

MW 1:45 - 3:00 8/17/20 - 9/23/20

This module is designed for Ph.D. students in economics who have finished the first-year graduate econometrics sequence and will pursue theoretical and/or applied econometrics as their dissertation topics. In terms of econometric applications, the main focus of the first part is the estimation and inference for econometric models with finite dimensional parameters based on cross-sectional and dependent data. Examples include ordinary least square, generalized methods of moments (GMM), (quasi) maximum likelihood, quantile regression, etc. On the technical side, we will cover the strategy and technical tools for deriving the asymptotic theory for Mestimators. After establishing the classical theory, we consider a modern perspective on the subject through the theory of empirical processes. The technical training in this part should facilitate further studies on topical courses in microeconometrics, standard time-series econometrics, and/or high-frequency financial econometrics.
### Topics in Econometrics

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<tr>
<td>883.06</td>
<td>Topics in Econometrics</td>
<td>Bugni, Federico</td>
<td>TTH</td>
<td>12:00 - 1:15</td>
<td>9/28/20 - 11/16/20</td>
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This module will primarily cover non-linear statistical models, focusing on the asymptotic properties of estimators of parameters of interest. It will first cover general theorems for estimators defined as optimizers of objective functions, such as MLE and GMM, LAD. A second part of the module will be the study of estimation of on parametric models, and their asymptotic properties. The methods introduced will be further explored in the analysis of widely applied non-linear models, such as binary and multi-nominal choice, censored and truncated regression, and sample selection models, in both cross-sectional and panel data settings.

### Topics in Economic Theory

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<tr>
<td>885.01</td>
<td>Topics in Economic Theory</td>
<td>Ambrus, Attila</td>
<td>TTH</td>
<td>8:30 - 9:45</td>
<td>8/18/20 -9/24/20</td>
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This module also has an online option during the same meeting pattern.

This course is a rigorous investigation of some of the central concepts in game theory, such as rationalizability, and Nash equilibrium and its refinements. It covers classical topics, such as repeated games, bargaining, and signaling games, as well as more specialized topics such as cheap talk, and supermodular games. Applications are provided for most of the topics.

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<td>885.02</td>
<td>Topics in Economic Theory</td>
<td>Ambrus, Attila</td>
<td>TTH</td>
<td>8:30 - 9:45</td>
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