

Course information 2025-26

EC3216 Applied Microeconomics

General information

MODULE LEVEL: 6

CREDIT: 30

NOTIONAL STUDY TIME: 300 hours

MODE: Locally Taught and Independent Learner Route Only (not available for Online Taught students)

Summary

Students will gain a thorough understanding of the breadth of microeconomics in an applied setting. The course will enhance the quality of the programme by providing an optional module that encompasses skills in both applied econometrics and microeconomic theory. The papers we cover will have a variety of econometric tools (for example, difference-in-differences, regression discontinuity design, and instrumental variables). The course will thus allow for students to further gain understanding of these methods while observing their use in answering questions related to microeconomics.

Conditions

Please refer to the relevant programme structure in the EMFSS Programme Regulations to check:

- where this course can be placed on your degree structure; and
- details of prerequisites and corequisites for this course.

You should also refer to the Exclusions list in the EMFSS Programme Regulations to check if any exclusions apply for this course.

Aims and objectives

The aims of the course are to:

- Students will gain further understanding of microeconomic theory as applied to important real-world situations.
- Students will read recent papers in the literature and develop the ability to critique and analyse contemporary research.
- Econometric understanding will be strengthened beyond that of an introductory course, with a specific focus on causal inference.

Learning outcomes

At the end of this course and having completed the essential reading and activities students should be able to:

- Be able to define and contrast the concepts of economic growth and development as well as describe major determinants of each.
- Describe the law of one price. Analyse intuitively and mathematically how communication and transportation infrastructure are important in context.
- Understand the basics of OLS regression, potential sources of bias, and the value of multiple regression to attempt to overcome bias.
- Evaluate the reason some markets are made illegal and the effectiveness of various methods of enforcement.
- Consider and analyse the trade-off between workplace safety and productivity.
- Implement the fixed effects and first difference estimators in the context of panel data.
- Evaluate the various possible labour market implications of the minimum wage and understand the theoretical underpinnings for those implications.
- Understand the assumptions and method of difference-in-differences. This is particularly useful in estimating the effect of a non-randomly assigned policy.
- Describe Becker's model of crime and evaluate crime using an economic perspective.
- Consider the purpose behind government-subsidised education and evaluate various forms of subsidies.
- Gain a mathematical understanding of the neoclassical labour supply model and various implications of that model.
- Understand the mechanics and underlying assumptions regarding the use of instrumental variables.
- Evaluate the role of moral hazard in the context of health insurance and consider the implications of consumer choice regarding health insurance.
- Understand the mechanics and underlying assumptions of the use of regression discontinuity. Evaluate in which settings the method can be used.
- Be able to mathematically evaluate entry decisions of firms in the context of the Spence-Dixit model.
- Describe the implications of collusion and the tenuous requirements that allow collusion to be maintained.
- Understand why OLS should not be used when the outcome is a binary variable and understand the implementation of probit and logit.
- Describe "productivity" in an economics context, describe its determinants, and understand methods of measurement.
- Use kernels to estimate densities of random variables as well as use kernels as a method of flexibly estimating a regression.
- Describe the major tenants and mathematical assumptions of prospect theory. Describe how this theory is useful in explaining real-world actions.

Employability skills

Below are the three most relevant employability skills that students acquire by undertaking this course which can be conveyed to future prospective employers:

1. Adaptability and resilience
2. Creativity and innovation
3. Complex problem solving

Essential reading

There will be 20 papers to read throughout the academic year, one for each week. Mostly Harmless Econometrics by Angrist and Pischke is a useful reference. Varian's Intermediate Microeconomics, a Modern Approach, is also useful but less relevant.

Assessment

This course is assessed by a three-hour and fifteen-minute closed-book written examination.

Syllabus

There will be 10 units, each comprising two weeks, with one paper to be read each week.

1. Role of Savings Institutions on Development and Growth *Econometric Topic is OLS in a Randomized Control Trial*

Paper 1: Savings constraints and microenterprise development: Evidence from a field experiment in Kenya. (Dupas and Robinson 2013).

Paper 2: Grain today, gain tomorrow: Evidence from a storage experiment with savings clubs in Kenya (Aggarwal, Francis, and Robinson 2018)

2. Role of Transportation and Communication Infrastructure *Econometric Topic is OLS in a non-experimental setting.*

Paper 1: Canals and orchards: The impact of transport network access on agricultural productivity in nineteenth-century Bangkok (Chankrajang and Vechbanyongratana 2020)

Paper 2: The digital provide: Information (technology), market performance, and welfare in the South Indian fisheries sector (Jensen 2007)

3. Regulations

Econometric Topic is Fixed Effects

Paper 1: Substance-Abuse Treatment and Mortality (Swensen 2015)

Paper 2: Workplace Safety and Worker Productivity: Evidence from the MINER Act (Li 2022)

4. Minimum Wage

Econometric Topic is Difference-in-Differences

Paper 1: Minimum Wages and Employment: A Case Study of the New Jersey and Pennsylvania fast food industries (Card and Krueger 1994)

Paper 2: Does Minimum Wage Increase Labor Productivity? Evidence from Piece Rate Workers (Ku 2022)

5. Role of Government Policy on Development and Growth *Econometric Topic is Difference-in-Differences*

Paper 1: The effect of early childhood education on adult criminality: Evidence from the 1960s through 1990s (Anders, Barr, and Smith 2023)

Paper 2: The impact of the first professional police forces on crime (Bindler and Hjalmarsson (2021)

6. Labour Supply

Econometric Topic is Instrumental Variables

Paper 1: Children and Their Parents' Labor Supply: Evidence from Exogenous Variation in Family Size (Angrist and Evans 1998)

Paper 2: What Do Fishermen Tell Us That Taxi Drivers Do Not? An Empirical Investigation of Labor Supply (Stafford 2015).

7. Healthcare Provision and Utilisation

Econometric Topic is Regression Discontinuity

Paper 1: Does Medicare Save Lives? (Card, Dobkin, and Maestas 2009)

Paper 2: Patient Cost-Sharing and Healthcare Utilization in Early Childhood: Evidence from a Regression Discontinuity Design (Han, Lien, and Yang 2020)

8. Market Entry and Collusion

Econometric Topic is Probit/Logit

Paper 1: How do Incumbents Respond to the Threat of Entry? Evidence from the Major Airlines (Goolsbee and Syverson 2008)

Paper 2: Learning to Coordinate: A study in Retail Gasoline (Byrne and de Roos 2019)

9. Productivity

Econometric Topic is Kernel Estimation

Paper 1: Non-farm entrepreneurship in rural sub-Saharan Africa: New empirical evidence (Nagler and Naude 2017)

Paper 2: Market Structure and Productivity: A Concrete Example (Syverson 2004)

10. Prospect Theory

Econometric Topic is Matching

Paper 1: (Over) insuring modest risks (Sydnor 2010)

Paper 2: Is Tiger Woods Loss Averse? Persistent Bias in the Face of Experience, Competition, and High Stakes (Pope and Schwietzer 2011)