Foundations of Economics

Root Number: 441667 – HS2025

Semester: Fall semester - HS 2025

ECTS: 8 ECTS

Lecturers: David Baumann (Mathematics & Statistics), Doris Oberdabernig and Kirti Jhunjhunwala (Microeconomics) & Octavio Fernández-Amador (Macroeconomics)

Dates: Please see details on pages 10 - 12

Audience:
- Master of Advanced Studies of International Law and Economics (MILE) Students – Compulsory
- Joint LL.M. / Diploma of Advanced Studies Trade and Investment Law (TRAIL+) Students - World Trade Institute / Faculty of Law, Unibe - Compulsory
- This course is not open to MILE a la Carte

CONTENTS

COURSE DESCRIPTION

This is an introductory course to Microeconomics and Macroeconomics for International Economics. Before the beginning of the course there will be an introductory module on Mathematics and Statistics. Students will gain a basic understanding of the most important economic theories on microeconomics, specifically the basic concepts of demand and supply, consumer- and producer theory, and market structures. Students will also be introduced to the foundations of macroeconomic analysis, in particular to concepts like the goods and financial markets, the functioning of macroeconomic policies, balance of payments and the exchange rates.

Detailed description by subject

Math and Statistics

The module revises topics on mathematics and descriptive statistics that are relevant to understand the economic analysis studied in the modules of the Master of International Law and Economics with focus on economic topics.

Microeconomics

The goal of the module is to gain a basic understanding of the most important economic theories on micro-economics. This will provide students with a foundation of microeconomic concepts and will enable them to understand the basic economics also relied on in the international trade literature. For this, some introductory topics in economics will be discussed such as demand and supply, consumer theory, and market structures. After the course, students should be able to explain the main concepts and theories on microeconomics and be able to follow the course on international trade.

The course comprises 10 lectures of 2 hours each (20 hours in total) plus 2 hours for the final exam. The module is structured as follows: The first session will be devoted to a short revision of the basics of supply and demand. The second session will focus on studying consumer behavior. The third to the fifth session will cover individual and market demand and production. In sessions six and seven the discussion will focus on the cost of production and the profit maximizing behavior of firms. In session eight all the concepts discussed so far will be applied to do an analysis of competitive markets. Session nine and ten will be devoted to discuss the concept of market power, with a special focus on monopolistic competitive markets.

The main reference is the textbook by Pindyck and Rubinfeld on Microeconomics. Students are expected to work through the book chapters indicated in this syllabus before class in order to facilitate their comprehension of the material to be discussed. In class, the material is discussed together thoroughly.

Macroeconomics

This module presents the core field of macroeconomics and international macroeconomics. Students will be introduced to the foundations of macroeconomics. They will learn the functioning of goods, financial and labour markets; the basic analysis of monetary and fiscal policies; as well as concepts like the balance of payments, the exchange rate, currency markets, international capital mobility, purchasing power parity, and interest rate parity. This will enable the students to better understand and interpret recent macroeconomic developments and the implications for government policies and markets. We shall address the economic policy options available to governments in the present context of economic globalization.

The main reference is the textbook by Blanchard (BLA, hereafter). We will supplement the textbook with readings from other sources such as academic journals, institutional reports, outlooks, and specialized news.

The course is organised to provide the theoretical underpinnings and some recent examples during the lectures. It is required from the students to read the main readings for each lecture to facilitate their understanding of the material to be discussed. In class, the material is discussed together thoroughly. It is expected from students their participation in class and their preparation of the material and exercises required.

Lecturers

David Baumann

David is a PhD candidate in economics at the World Trade Institute (WTI). His research addresses the nexus between international trade and climate change, with a special focus on emissions pricing regimes, the theory and empirics of trade wars, and the impacts of natural disasters and extreme weather events on trade flows and global value chains. David holds an MSc in Applied Economic Analysis with a special qualification in Trade and International Development from the University of Bern. Prior to joining the WTI, David worked as a research assistant for a large longitudinal social structure study, as an assistant in energy and climate economics at an economics consultancy working for the Swiss government, and as an academic intern in the section for market regulation at the Swiss Federal Office of Energy. He is passionate about international trade, climate and energy economics, political economy, as well as data analytics and visualization.

Doris Oberdabernig

Doris Oberdabernig is Professor of Environmental Economics at the University of Innsbruck (Austria) and a Senior Research Fellow at the WTI. She holds a PhD in Economics, and degrees in Political Economy and in International Economics and Business Sciences from the University of Innsbruck. Before joining the University of Innsbruck, she has worked and taught at different Universities and was part of several research projects. She worked at the WTI as postdoc senior researcher and lecturer, as teaching and research associate at the Vienna University of Business and Economics (WU, Austria), and as research associate at the Austrian Institute of Economic Research (WIFO). She also worked as consultant for the World Trade Organization (WTO), for different World Bank projects, and for the private sector. Her field of research comprises applied econometrics, environmental economics, international economics, development and political economy, and she has published in several international scientific journals on these topics.

Kirti Jhunjhunwala

Kirti Jhunjhunwala, is a PhD candidate at the World Trade Institute. She is working on an SNF project with Joseph Francois on the impact of uncertainties in global value chains on services trade. Prior to this, she was working with the World Trade Organisation`s Economic Research and Statistics Division. She worked with their quantitative modelling team to develop and analyse results from the WTO`S Global Trade model in the domain of climate change, gender and subsidies. She has completed her Masters in International Economics from IHEID, Geneva. She also holds a Masters in Business Administration degree from India and has worked as a consultant with the Boston Consulting Group. She is interested in international trade, behavioural economics and climate change. She is also passionate about learning and discovering new fields and bringing them together to make her research more holistic.

Octavio Fernández-Amador

Octavio Fernández-Amador is a senior researcher at World Trade Institute. He achieved his Habilitation from the University of Bern (Switzerland) and holds a PhD in Economics from the University of Innsbruck (Austria) and a degree in Economics from University of Sevilla (Spain). He has previously worked as a Postdoc Assistant Professor at Johannes Kepler University Linz (Austria). Octavio has collaborated in projects with different institutions. His field of research is applied econometrics and macro-econometrics. He has worked on international macroeconomics, trade, monetary economics, applied econometrics, time series analysis, and the quantitative analysis of climate change. Octavio has published in various international scientific journals.

LEARNING OBJECTIVES

Math and Statistics

- Revising basic mathematical and statistical concepts;
- Understanding the use of those concepts in economics.

Microeconomics

- Understanding the basics of micro-economics as a foundation to economics;
- Understanding how, given technology, a firm minimizes its costs
- Learning how profit maximizing firms act on competitive and non-competitive markets

Macroeconomics

- Understanding the most important concepts and tools for analysis of macroeconomics and international macroeconomics
- Being able to better understand and interpret recent macroeconomic developments in an international context
- Addressing the economic policies available to governments in the present era of economic globalization

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RECOMMENDED LITERATURE

- Rosser, M. and P. Lis (2016): Basic Mathematics for Economists. 3rd edition. Routledge.
- Triola, M.F. Essentials of Statistics. 6th edition. Pearson.
- Pindyck, R., Rubinfeld, D. (2018): Microeconomics. 9th edition. Pearson.
- Blanchard (2017): Macroeconomics. 7th Global edition, Boston: Pearson Education.

Note: We will deliver additional readings in advance to help understand basic concepts related to the lectures and to supplement the compulsory readings either during the class or for the exercises proposed. The readings delivered will be considered part of the material to prepare the exam, unless the instructor excludes them from being part of the content of the exam.

EXAMS AND GRADES

Important: A positive evaluation of each of the THREE modules of Foundations of Economics is necessary to complete the whole course with a positive grade!

Math and Statistics

- The grade will be based on an exam (no open book)
- The grade on Math and Statistics counts for 10% of the final course grade

Microeconomics

- The grade will be based on an exam (no open book)
- The grade on Microeconomics counts for 45% of the final course grade

Macroeconomics

- The grade will be based on an exam (no open book)
- The grade on Macroeconomics counts for 45% of the final course grade

Lesson	Date	Week day	Subject	Hours	Time	Lecturer	Topic	Reading
	09.19.25	Fri	Maths and Statistics	1	8:30-9:30	D. Baumann	Placement exam discussion	
1.S1	09.19.25	Fri	Maths and Statistics	3	09.30-12.30	D. Baumann	Elementary Algebra, Functions, Equations, Growth Rates,	Rosser, M. "Basic Mathematics for Economists"
2.S2	09.25.25	Thu	Maths and Statistics	3	13:30-16:30	D. Baumann	Differential Calculus; Statistics terminology, Frequency distributions,	Rosser, M. "Basic Mathematics for Economists" Triola, M.F. "Essentials of Statistcs"
3.S3 4.S4	09.26.25	Fri	Maths and Statistics	3	9:30-12:30	D. Baumann	Measures of Central Tendency and Location, Measures of dispersion and dependence, Index numbers Exercises	Triola, M.F. "Essentials of Statistcs"
SE	09.30.25	Tue	Maths and Statistics Exam	2	14:00-16:00	D. Baumann	Exam	
5.Mi1	10.02.25	Thu	Microeconomics	2	13:30-15:30	D. Oberdabernig	Very short revision: Supply and Demand; Consumer Behavior	Pindyck and Rubinfeld, Ch. 1-2
6.Mi2	10.03.25	Fri	Microeconomics	2	10:30-12:30	D. Oberdabernig		Pindyck and Rubinfeld, Ch. 3
7.Mi3	10.09.25	Thu	Microeconomics	2	13:30-15:30	D. Oberdabernig	Individual and Market Demand	Pindyck and Rubinfeld, Ch. 4
8.Mi4	10.10.25	Fri	Microeconomics	2	10:30-12:30	D. Oberdabernig	Production	Pindyck and Rubinfeld, Ch. 4 and 6
9.Mi5	10.16.25	Thu	Microeconomics	2	13:30-15:30	D. Oberdabernig	Cost of Production	Pindyck and Rubinfeld, Ch. 6

10.Mi6	10.17.25	Fri	Microeconomics	2	10:30-12:30	K. Jhunjhunwala	Competitive markets	Pindyck and Rubinfeld, Ch. 7
11.Mi7	10.23.25	Thu	Microeconomics	2	13:30-15:30	K. Jhunjhunwala	Cost of Production	Pindyck/ Rubinfeld, Ch. 8
12.Mi8	10.24.25	Fri	Microeconomics	2	10:30-12:30	K. Jhunjhunwala	Profit maximization	Pindyck and Rubinfeld, Ch. 9.1.-9.4. + 9.6
13.Mi9	10.30.25	Thu	Microeconomics	2	13:30-15:30		Competitive markets	Pindyck and Rubinfeld, Ch. 10.1-10.4
14.Mi10	10.31.25	Fri	Microeconomics	2	10:30-12:30	K. Jhunjhunwala	Market power and monopolistic competition	Pindyck and Rubinfeld, Ch. 12.1
MIE	11.06.25	Thu	Microeconomics Exam	2	13:30-15:30		Exam	
15.Ma1	11.07.25	Fri	Macroeconomics	2	10:30 – 12:30	O. Fernández-Amador	The short run (I): The goods market	BLA 3
16.Ma2	11.13.25	Thu	Macroeconomics	2	13:30 – 15:30	O. Fernández-Amador	The short run (II): Financial markets	BLA 4
17.Ma3	11.14.25	Fri	Macroeconomics	2	10:30 – 12:30	O. Fernández-Amador	The short run (III): Goods and financial markets: The IS-LM model	BLA 5
18.Ma4	11.20.25	Thu	Macroeconomics	2	13:30 – 15:30	O. Fernández-Amador	The short run (IV): The extended IS-LM model: financial markets revisited	BLA 6
19.Ma5	11.21.25	Fri	Macroeconomics	2	10:30 – 12:30	O. Fernández-Amador	The medium run (I): The labor market	BLA 7
20.Ma6	11.27.25	Thu	Macroeconomics	2	13:30 – 15:30	O. Fernández-Amador	The medium run (II): The Phillips curve	BLA 8
21.Ma7	11.28.25	Fri	Macroeconomics	2	10:30 – 12:30	O. Fernández-Amador	The medium run (III) The IS-LM-PC model	BLA 9

22.Ma 8	12.04.25	Thu	Macroeconomics	2	13:30 – 15:30	O. Fernández-Amador	The open economy (I): Openness in goods and financial markets	BLA 17
23.Ma 9	12.05.25	Fri	Macroeconomics	2	10:30 – 12:30	O. Fernández-Amador	The open economy (II): The goods market	BLA 18
24.Ma 10	12.11.25	Thu	Macroeconomics	2	13:30 – 15:30	O. Fernández-Amador	The open economy (III):The Mundell-Fleming model	BLA 19
MAE	12.15.25	Mon	Macroeconomics Exam	2	09:30-11:30	O. Fernández-Amador	Exam	

Maths and Statistics (D. Baumann)

Topic:

- Revising mathematics (5 hours):
  Elementary algebra: notation, arithmetic operations, evaluating expressions; Equations: re-arranging terms, solving (linear) systems of equations; Functions: meaning and use, prominent types, plotting; Growth rates; Differential calculus: meaning and use, differentiation rules, elasticity.

- Revising descriptive statistics (4 hours):
  Terminology and types of variables; Frequency distributions and histograms; Measures of central tendency, location, dispersion and dependence; Index numbers.

Optional Reading Materials:

The lessons will revise the topics mentioned above. Students who have covered these concepts in high school should be able to follow without special reading. Background readings to refresh the material are

- Rosser, M. & Lis, P. (2016): Basic Mathematics for Economists. 3rd ed., Taylor & Francis Ltd;
- Keedy M.L. (1978), Algebra One, Addison-Wesley Publishing Company
- Triola, M.F (2011): Essentials of Statistics. 4th ed., Pearson.

Microeconomics (Doris Oberdabernig)

Topics:

- Revision of the basics of supply and demand:
  (Note: Students are requested to have prepared this material before the beginning of the MILE/TRAIL+. The revision will assume that students are familiar with the topic); The market mechanism; Elasticities and slopes; Supply and demand

Compulsory Reading Materials:

- Pindyck, R., Rubinfeld, D. (2018): Microeconomics. 9th edition. Pearson. Chapters 1-2

Optional Reading Materials:

- Machlup F. (1958): Equilibrium and Disequilibrium: Misplaced Concreteness and Disguised Politics. The Economic Journal, 68(269), 1-24.

Microeconomics (Doris Oberdabernig)

Topics:

- Consumer behavior

    Consumer preferences; Budget constraints; Consumer Choice; Revealed Preference; Marginal Utility and Consumer Choice

Compulsory Reading Materials:

Pindyck, R., Rubinfeld, D. (2018): Microeconomics. 9th edition. Pearson. Chapter 3

Microeconomics (Doris Oberdabernig)

Topics:

- Individual and market demand:
  Individual Demand; Income and Substitution Effects; Market Demand; Consumer Surplus; Network
  Externalities

Compulsory Reading Materials:

- Pindyck, R., Rubinfeld, D. (2018): Microeconomics. 9th edition. Pearson. Chapter 4

Microeconomics (Doris Oberdabernig)

Topics:

- Individual and market demand; Production:
  Revision of individual and market demand; Firms and their production decisions; Production with one variable input (labor);

Compulsory Reading Material:

- Pindyck, R., Rubinfeld, D. (2018): Microeconomics. 9th edition. Pearson. Chapters 4, 6

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Microeconomics (Doris Oberdabernig)

Topics:

- Production:

    Revision of production; Firms and their production decisions; Production with one variable input (labor); Production with two variable inputs; Returns to scale

Compulsory Reading Material:

- Pindyck, R., Rubinfeld, D. (2018): Microeconomics. 9th edition. Pearson. Chapter 6

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Microeconomics (Kirti Jhunjhunwala)

Topics:

- Cost of Production
- Measuring cost; Cost in the Short run; Cost in the long run; Long-run vs. short-run cost curves; production with two outputs; The learning curve.

Compulsory Reading Materials:

- Pindyck, R., Rubinfeld, D. (2018): Microeconomics. 9th edition. Pearson. Chapter 7

Further Comments: The students are expected to be especially familiar with the topics discussed in Pindyck and Rubinfeld, Chapter 7.1. Due to time constraints this section can be discussed only briefly in the lecture.

Microeconomics (Kirti Jhunjhunwala)

Topics:

- Profit Maximization and Competitive Supply:
  The concepts of perfectly competitive markets and profit maximization; Marginal revenue, marginal cost, and profit maximization; Short- and long-run supply curves for firms and the market; Producer surplus; Output in the long-run; Effects of a tax on output.

Compulsory Reading Material:

- Pindyck and Rubinfeld, Chapter 8

Further Comments: The students are expected to be especially familiar with the topics discussed in Pindyck and Rubinfeld, Chapter 8.1 and 8.2. Due to time constraints this section can be discussed only briefly in the lecture.

Microeconomics (Kirti Jhunjhunwala)

Topics:

- The analysis of competitive markets:
  Gains and losses from government policies; Efficiency of competitive markets; Minimum prices; Price supports and production quotas.

Compulsory Reading Materials:

- *Pindyck and Rubinfeld, Chapter 9.1 – 9.4 and 9.6*

Microeconomics (Kirti Jhunjhunwala)

Topics:

- Market power:

  The monopoly and monopoly power; Sources of monopoly power; The social costs of monopoly power.

Compulsory Reading Materials:

- Pindyck and Rubinfeld, Chapter 10.1 – 10.4

Microeconomics (Kirti Jhunjhunwala)

Topics:

- Monopolistic competition

Compulsory Reading Materials:

- *Pindyck and Rubinfeld, Chapter 12.1*

Macroeconomics (O. Fernández-Amador)

Topics:

- The short run (I): The goods market.

  The goods market equilibrium and the determination of output; the interaction among demand, production and income; effects of fiscal policy on output.

Suggested Reading Materials:

- BLA, chapter 3.

Macroeconomics (O. Fernández-Amador)

Topics:

- The short run (II): Financial markets.
  The equilibrium in financial markets and the determination of the interest rate in the short run; effects of monetary policy on the interest rate.

Suggested Reading Materials:

- BLA, chapter 4.

Macroeconomics (O. Fernández-Amador)

Topics:

- The short run (III): Goods and financial markets: The IS-LM model.
  The equilibrium in the goods market: The IS relation; the equilibrium in the financial markets: The LM relation; the IS-LM model and the effects of fiscal and monetary policy; dynamics and the short-run description of the economy.

Suggested Reading Materials:

- BLA, chapter 5.

Macroeconomics (O. Fernández-Amador)

Topics:

- The short run (IV): The extended IS-LM model: financial markets revisited.
  Nominal and real interest rates; risk and interest rates; financial intermediaries; the extended IS-LM model; the recent financial crisis.

Suggested Reading Materials:

- BLA, chapter 6.

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Macroeconomics (O. Fernández-Amador)

Topics:

- The medium run (I): The labor market.
  Equilibrium in the labor market; wage and price determination; the natural rate of unemployment.

Suggested Reading Materials:

- BLA, chapter 7.

Macroeconomics (O. Fernández-Amador)

Topics:

- The medium run (II): The Phillips curve.

  The relationship between inflation, expected inflation, and unemployment; the Phillips curve and the natural rate of unemployment; the relation between unemployment and inflation cross-country and over time.

Suggested Reading Materials:

- BLA, chapter 8.

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Macroeconomics (O. Fernández-Amador)

Topics:

- The medium run (III): The IS-LM-PC model.
  The IS-LM-PC model; the dynamics of adjustment of output and inflation; two examples: The dynamic effects of fiscal consolidation and of oil price shocks.

Suggested Reading Materials:

- BLA, chapter 9.

Macroeconomics (O. Fernández-Amador)

Topics:

- The open economy (I): Openness in goods and financial markets.
  Implications of openness in goods and financial markets; the nominal exchange rate; the real exchange rate; the balance of payments of a country; the interest rate parity condition.

Suggested Reading Materials:

- BLA, chapter 17.

Macroeconomics (O. Fernández-Amador)

Topics:

- The open economy (II): The goods market.

  The equilibrium in the goods market for an open economy and the trade balance; effects of domestic and foreign shocks; the effects of a real depreciation; the connection among savings, investment and the trade balance.

Suggested Reading Materials:

- BLA, chapter 18.

Macroeconomics (O. Fernández-Amador)

Topics:

- The open economy (III): The Mundell-Fleming model.
  Equilibrium in the goods and financial markets when including the foreign exchange market; the determination of output, interest rate and exchange rates; policy under flexible and fixed exchange rates.

Suggested Reading Materials:

- BLA, chapter 19.