

# Applied Economics BSc

Eötvös Loránd University, Faculty of Social Sciences, Department of Economics

## List of compulsory courses

### Mathematics for economists I.

The goal of this two-semester long course is to provide students with key mathematical knowledge and skills which will be required in the economics curriculum. Students learn the most important concepts and results of linear algebra, calculus, optimization, and probability theory, and also deepen and apply their knowledge through examples. The course is practice-oriented: emphasis is put on understanding the material as well as the intelligent mathematical application of basic tools of the 21st century.

Literature:

Mavron, V. C., & Phillips, T. N. (2023). Elements of mathematics for economics and finance (2nd ed.). Cham, Switzerland: Springer International Publishing.

### History and economic development

The main goal of the course is to put the fundamental problems of economics into an historical context. After studying the organization of economic activities in the Antiquities and in the Middle Ages, the students will learn about the evolution of markets as well as the preconditions and consequences of industrialization. Both successes and pitfalls of capitalism will be shown, including the emergence of Big Business, the Great Depression, the role of the governments, and different waves of globalization. Along with historical development, milestones of economic thinking will also be discussed through the portraits of the greatest classical and modern economists.

Literature:

Heilbroner, R. L. & Milberg, W.: The Making of Economic Society, 13th Ed., Pearson Education Inc., Boston, 2012.

Cameron, R. E. & Neal, L.: A Concise Economic History of the World: From Paleolithic Times to the Present, 4th ed., Oxford University Press, Oxford, 2003.

### Introduction to management

Introduction to Management is designed to provide students with a comprehensive understanding of the principles, theories, and practices of management. The course covers various aspects of management, including planning, organizing, leading, and controlling, as well as the roles and functions of managers in different organizational settings. Through lectures, case studies, discussions, and practical exercises, students will develop the knowledge and skills necessary to effectively manage people, resources, and processes in both profit and non-profit organizations.

Literature:

Robbins, S. P., M. A. Coulter and D. A. De Cenzo: Fundamentals of management, 11th ed., Pearson, Harlow, 2020.

### Introduction to political science

The course gives an introduction into the basic elements of political system (legislative and executive branches, political culture) and into those elementary theories, research trends and disciplines (transitology, theories of democracy, globalization) which provide the basic terminology

and literature background for the students' further studies. In the second part of the semester, based on the above-mentioned, the course gives an insight into the basic patterns and elements of some remarkable countries (United Kingdom, Germany, France, United States of America).

Literature:

Roskin, Michael, Robert L. Cord, James A. Medeiros, and Walter S. Jones: Political science: an introduction. Boston: Longman, 2016.

### **Introduction to law**

The course provides an introduction to some fundamental topics of law and legal scholarship. It starts by discussing such perennial conceptual questions as the concept of law, the relation of law and morality, and basic elements of legal thinking. Students then get familiarized with the mainstream systemic approach to law and learn the traditional divisions and some basic institutions of a legal order, and the increasingly important – and contested – field of human rights. After the Autumn break and the mid-term exam, the course will continue with the complex topics of European law, the role of courts, and the particularities of the legal process, especially interpretation. Although it is a lecture course, students are encouraged to engage in classroom discussions.

Literature:

Hage, J. and Akkermans, B. eds. (2014) Introduction to Law, Springer  
Wacks, R. (2008) Law: A Very Short Introduction, OUP Press.

### **Introduction to economics I.**

The course provides an introduction to the colourful and exciting world of economics. By exploring the fundamental ways of economic thinking, students will gradually learn the most important concepts, principles, and approaches of the subject. The main focus is on presenting, understanding, and modelling some basic economic problems for those who have not learnt economics before. In the first semester, we will study microeconomics, which examines processes from the point of view of the individual actors.

Literature:

N. Gregory Mankiw: Principles of Economics, Ninth Edition, Cengage Learning, Inc., Boston MA, 2021.

### **Reading academic texts**

The course aims to equip students with the necessary skills to read, understand, and interpret academic texts of different genres. It is to deepen their conceptual awareness and to help them acquire skills for understanding (and later producing) scholarly texts. The reading material will provide a journey through numerous academic fields (from cognitive science and geometry to philosophy of history and literary criticism) exhibiting different traditions of argumentation. The assigned texts themselves discuss how we gain (produce) knowledge, how we observe and describe physical, cognitive or social phenomena.

Literature:

Anthony Weston (2000) A Rulebook for Arguments, Hackett.  
Martin Hollis (1994) The Philosophy of Social Science: An Introduction, Cambridge.

### **Introduction to sociology 1.**

This is the first part of a two-semester lecture course, which aims to provide an overview of a wide range of concepts, theories, and research areas of sociology. Students become familiar with some of the main schemes of interpretation and forms of explanation used by sociologists, the logical

interconnections between conceptual systems and theoretical approaches, as well as with characteristic problems in particular fields of social scientific inquiry.

Literature:

Giddens, A., Duneier, M., Appelbaum, R. P. & Carr, D.: Introduction to Sociology, 11<sup>th</sup> ed. New York: Norton, 2018.

### Mathematics for economists II.

The goal of this two-semester long course is to provide students with key mathematical knowledge and skills which will be required in the economics curriculum. Students learn the most important concepts and results of linear algebra, calculus, optimization, and probability theory, and also deepen and apply their knowledge through examples. The course is practice-oriented: emphasis is put on understanding the material as well as the intelligent mathematical application of basic tools of the 21st century.

Literature:

Mavron, V. C., & Phillips, T. N. (2023). Elements of mathematics for economics and finance (2nd ed.). Cham, Switzerland: Springer International Publishing.

Gazi, O. (2023). Introduction to probability and random variables (1st ed.). Cham, Switzerland: Springer International Publishing.

### Statistics for economists I.

The aim of the course is to provide an introduction to the basics of statistics, with a particular focus on how different statistical tools are most commonly used in economics. Statistics 1 introduces students to the basics of statistical thinking, different ways of collecting data, describing data sets (central tendency indicators, measures of dispersion), visualization of data. Then, the concept of probability, different types of variables, probability distributions, sampling and sampling distribution, estimation from a sample and its nature are introduced. The course will conclude with a discussion of hypothesis testing and simple parametric statistical tests.

Literature:

Freedman, D., Pisani, R., & Purves, R. (2007). Statistics (International student ed., 4. ed). New York: Norton.

Friedman, M. (2009). Probability and Statistics (Workbook). Piscataway: Research & Education Association.

McClave, J. T., Benson, P. G., & Sincich, T. (2018). Statistics for business and economics (Edition 13). Boston: Pearson.

### Introduction to economics II.

The course provides an introduction to the colourful and exciting world of economics. By exploring the fundamental ways of economic thinking, students will gradually learn the most important concepts, principles, and approaches of the subject. The main focus is on presenting, understanding, and modelling some basic economic problems for those who have not learnt economics before. In the spring semester, we will study macroeconomics, which examines processes from the point of view of the whole economy.

Literature:

N. Gregory Mankiw: Principles of Economics, Ninth Edition, Cengage Learning, Inc., Boston MA, 2021.

## Academic writing

The aim of the course is to equip students with methodological knowledge and skills which is essential for the critical use of scientific texts and for the production of high-quality seminar papers. Students will familiarize themselves with the basic requirements of social science research and publishing, learn the formal and content requirements of essay writing, practice the methods of topic selection, of resource collection, of hypothesis-construction, of text formatting and drafting of abstracts.

Literature:

Stephen Bailey (2014) *Academic Writing: A Handbook for International Students*, Routledge.

Trevor Day (2013) *Success in Academic Writing*, Palgrave.

Umberto Eco (1977) *How to Write a Thesis*, MIT Press.

## Comparative politics

The aim of the course is to introduce the most relevant topics, theories and findings of contemporary political science, like democracy, democratization, political transitions, the various forms of contemporary authoritarianism, and a comparative analysis of key elements of political systems (parties and interest groups, voters and elections, political culture, government and decision-making, federalism, and so on).

Caramani, D. ed.: *Comparative Politics*. 3<sup>rd</sup> ed., Oxford: Oxford University Press, 2014.

Powell, J. B., Dalton, Russel J., Strøm, K. eds.: *Comparative Politics Today*. 11<sup>th</sup> ed., Pearson, Harlow, 2015.

Sartori, G.: *Comparative constitutional engineering. An Inquiry into Structures, Incentives and Outcomes*. Palgrave Macmillan, London, 1994.

## Introduction to sociology 2.

This is the second part of the two-semester lecture course Introduction to sociology. Continuing the first one, the current part outlines some major research fields of sociology and – through their lens – some particular domains of social life in modern societies from deviance to education and from religion to welfare.

Literature:

Giddens, A., Duneier, M., Appelbaum, R. P. & Carr, D.: *Introduction to Sociology*, 11<sup>th</sup> ed. New York: Norton, 2018.

Giddens, A. & Sutton, P. W.: *Sociology*, 8th ed. Cambridge: Polity, 2017.

## Statistics for economists II.

The course builds on the material from Statistics 1. In Statistics 2, more complex multivariate modelling techniques will be covered. It also provides a thorough insight into time series analysis and so-called non-parametric tests. The theoretical foundations of these statistical tools will be clarified in class.

Literature:

Freedman, D., Pisani, R., & Purves, R. (2007). *Statistics (International student ed., 4. ed)*. New York: Norton.

Friedman, M. (2009). *Probability and Statistics (Workbook)*. Piscataway: Research & Education Association.

McClave, J. T., Benson, P. G., & Sincich, T. (2018). *Statistics for business and economics (Edition 13)*. Boston: Pearson.

## Microeconomics I.

Microeconomics studies how individuals and firms make choices facing scarce resources. The course offers a thorough analysis of the theory at an intermediate level. The first part of the course covers the core chapters, including consumer's choice, firm's behavior, and the study of supply and demand in different markets. A deeper understanding of the material is facilitated by discussing the most important parts of the theory as well as solving numerical problems during the seminars.

Literature:

Varian, H. R.: Intermediate Microeconomics: With Calculus, First Edition Media Update, New York: W. W. Norton & Co., 2020.

Bergstrom, T. C. & Varian, H. R.: Workouts in Intermediate Microeconomics, 9<sup>th</sup> ed., New York: W. W. Norton & Co., 2014.

## Macroeconomics I.

Macroeconomics studies the economy as a whole. This intermediate level course provides students with a thorough knowledge of the most important concepts and theories of the discipline. The first part of the course covers the core: the economy in the long run, the basics of growth theory, short-run fluctuations analyzed in the IS-LM/AD-AS framework, and the open economy. A deeper understanding of the material is facilitated by discussing the most important parts of the theory as well as solving numerical problems during the seminars.

Literature:

Mankiw, N. G.: Macroeconomics, 11<sup>th</sup> ed., New York: Worth Publishers, 2022.

## Introduction to finance

Introduction to Finance provides students with a comprehensive introduction to the principles, theories, and applications of finance. Through a blend of theoretical concepts, real-world examples, and practical exercises, students will gain a solid understanding of financial markets, and investment decisions. The course serves as a foundation for further exploration in finance-related disciplines and equips students with essential financial literacy skills for personal and professional success.

Literature:

R. W. Melicher and E. A. Norton: Introduction to Finance: Markets, Investments, and Financial Management, 6th ed., Wiley, Hoboken, 2017.

## Introduction to econometrics

The aim of the course is that students become familiar with the theoretical background and empirical applications of major econometric techniques, including basic tools in cross-sectional and time series analysis. First it covers ordinary least squares estimation of the linear regression model and the properties of the estimator under various assumptions. Then it deals with the interpretation of the parameters, the choice of functional form, prediction, model selection and some special topics (heteroscedasticity, dummy variables). Finally, the modelling choices in the time series context are discussed such as autoregressive models, trends, seasonality and regression with time-dependent data.

Literature:

Wooldridge, J. M.: Introductory Econometrics: A Modern Approach. 5th edition, Cengage Learning, 2013.

## Microeconomics II.

Microeconomics studies how individuals and firms make choices facing scarce resources. The course offers a thorough analysis of the theory at an intermediate level. In the second part of the course, students will learn the basics of general equilibrium, asymmetric information, and game theory. A deeper understanding of the material is facilitated by discussing the most important parts of the theory as well as solving numerical problems during the seminars.

Literature:

Varian, H. R.: *Intermediate Microeconomics: With Calculus, First Edition Media Update*, New York: W. W. Norton & Co., 2020.

Bergstrom, T. C. & Varian, H. R.: *Workouts in Intermediate Microeconomics, 9<sup>th</sup> ed.*, New York: W. W. Norton & Co., 2014.

## Macroeconomics II.

Macroeconomics studies the economy as a whole. This intermediate level course provides students with a thorough knowledge of the most important concepts and theories of the discipline. In the second part of the course more advanced approaches and theories are introduced: dynamic models of economic fluctuations, micro-foundations of consumption and investment, government debt and budget deficit, and expectations. A deeper understanding of the material is facilitated by discussing the most important parts of the theory as well as solving numerical problems during the sessions.

Literature:

Jones, C. I.: *Macroeconomics, 5<sup>th</sup> ed.*, New York: W. W. Norton & Co., 2021.

Mankiw, N. G.: *Macroeconomics, 11<sup>th</sup> ed.*, New York: Worth Publishers, 2022.

## Political economy

The course examines the interaction between economics and politics from a comparative point of view. It gives an overview of the most important concepts and results in the field of political economy, including the different characteristics of political and economic systems, lessons of transitions between them as well as the institutional determinants of development. Comparison of social, political and economic structures provides the students with a solid foundation in the discipline, while also strengthens analytical, historical and critical awareness in studying and interpreting problems. The course is very useful for students aiming for either academic or professional careers.

Literature:

Acemoglu, D., & Robinson, J. A.: *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. Crown Publishers, New York, 2012.

Shepsle, K. A.: *Analyzing Politics: Rationality, Behavior and Institutions*. W. W. Norton & Company, New York, Chapters 3-5 & 7.

## Development economics

This course provides an overview of the theories, policies, and challenges of economic development in developing countries. Through the lens of economic theory and empirical evidence, students will explore topics such as poverty, inequality, growth, trade, and institutions in the context of global development.

Literature:

Todaro, M. P. and Smith, S. C.: *Economic Development 13<sup>th</sup> ed.*, Pearson, Harlow, 2020.

## Institutional economics

Institutional economics is an increasingly important sub-branch of economics. At an introductory level, the course offers access to complex institutional economics concepts, such as competition, cooperation, rules, organizations and institutions. The course provides an introduction to institutional economics with particular emphasis on the so called New Institutional Economics School, established by Ronald Coase, Oliver Williamson and Douglass North. Topics to be discussed include formal and informal institutions, bounded rationality, economics of transaction costs, economics of contracts, theory of property rights, theory of collective action, as well as public choice. As a result, students should gain a comprehensive view of the most important, overarching topics of institutional economics. Based on this, they can in the future pursue further studies in institutional economics, and/or may want to apply concepts of institutional economics in other related social science disciplines, such as law, political science, international relations or sociology. In addition, institutional economics insights can be also applied in examining issues in management sciences, such as managerial control and incentives.

### Literature:

Acemoglu, D., Johnson, S. & Robinson, J. A. (2005). "Institutions as the Fundamental Cause of Long-Run Growth". In: Philippe Aghion & Stephen Durlauf eds.: *Handbook of Economic Growth*, Elsevier, North Holland.

Coase, R. H. (1937). "The Nature of the Firm". *Economica*, New Series, 4(16): 386-405.

Williamson, O. E. (1985). *The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting* (Free Press, New York). Chapter 2: Contractual Man, pp. 43-67.

## Thesis seminar

The Undergraduate Thesis Seminar is designed to guide students through the process of conceiving, researching, and writing an undergraduate thesis. The course provides students with the opportunity to integrate and apply the knowledge and skills acquired throughout their undergraduate program.

### Literature:

No main texts are assigned as each topic is different.