

Master's, Doctoral, and Post-doctoral Track Program: Economics and Econometrics

1. Open Doors winner's skill set

Winning the Open Doors competition requires a firm grasp of the following concepts and themes:

- core tools and models in microeconomics and macroeconomics;
- principles governing the functioning of regional and sectoral economies;
- structure and dynamics of the world economy and global financial systems;
- contemporary mathematical methods applied to economic analysis;

The winner is expected to demonstrate a solid command of the following skills:

- applying quantitative tools to solve economic problems;
- conducting data analysis, forecasting, and interpreting economic outcomes;
- performing financial analysis and evaluating the performance of firms and the effectiveness of regional economic policies;
- using econometric methods to study and model economic processes.

2. List of degree programs covered by the subject area

2.1. List of doctoral degree programs

- 5.2.1. Economic Theory
- 5.2.2. Mathematical, statistical and instrumental methods in economics
- 5.2.3. Regional and sectoral economy
- 5.2.4. Finance
- 5.2.5. World economy

2.2. List of master's degree programs

- 01.04.05. Statistics
- 04.27.07. High-tech and innovation economics
- 38.04.01. Economics
- 38.04.05. Business Informatics
- 38.04.08. Finance and credit

3. Content

Field of science 1. Economic theory

Microeconomics

1. Consumer choice theory and demand: Preferences, utility, demand. Quantitative theory. Order theory. Consumer's optimum. Individual and market demand. Income effect and substitution effect. Interaction of supply and demand. Elasticity of supply and demand, its measurement.

2. Theory of production and cost: Production function. Expansion of production. Short- and long-term production cost analysis. Production optimum.

3. Markets of goods: Perfect competition. Monopoly and monopoly power. Oligopoly. Monopolistic competition. Market equilibrium. Government regulation (taxes, subsidies, fixed prices, etc.).

Macroeconomics

4. Macroeconomic indicators and methods of their evaluation: Gross national income, gross domestic product, national income and others. The concept of the system of national accounts.

Inflation: causes, types, methods of measurement. Unemployment: types, methods of assessment.

5. Macroeconomic equilibrium modeling: Aggregate Demand-Aggregate Supply model (AD-AS model). Modeling in aggregated markets: the equilibrium model for the money market (LM model), for the goods market (IS model), and for the labor market. The IS-LM model. The multiplicative effects in the goods and money markets (the extended multiplier of autonomous expenses, the monetary multiplier that takes into account the behavior of commercial banks and the population).

6. Instruments of state economic policy: Monetary and fiscal policy: efficiency in the short and long run. Balanced budget multipliers. Public debt. Open economy. Balance of payments and its structure. Exchange rate and purchasing power parity. Open economy equilibrium model (IS-LM-BP model). The Mundell-Fleming model. Macroeconomic stabilization policy, taking into account the varying degrees of capital mobility.

7. Macroeconomic dynamics: The economic cycle: causes, types and phases. The industrial cycle model. The multiplier-accelerator model. The inflationary spiral, inflationary expectations. Theory of technological paradigms (long waves). Model of economic growth. The theory of economic growth. The Solow model.

Field of science 2. Regional and sectoral economy

Regional economy

1. Economic space and spatial processes. Heterogeneity of the economic space. Basic concepts of spatial economics. Sustainable development.

2. Models of production placement and organization of economic space. The Thünen model. The Launhardt model. Weber's theory of location. Hotelling's model. Christaller's central place theory. Lösch's theory of spatial organization. Alonso's model of a city.

3. Factors of regional development. The importance of natural conditions and resources for regional development. Models of growth that do not include technical changes. Human capital and regional development. The concept and theory of human capital. Investments in human capital. Social capital. Creativity and urban development.

4. Territorial competitiveness. Innovations and clusters. Growth poles theory. Diffusion of innovations. Innovations and regional development. Porter's cluster theory.

Enterprise economics

5. Resources of an enterprise. Fixed assets of the enterprise: types, types of depreciation, accounting and evaluation, depreciation, depreciation methods, reproduction methods, evaluation indicators. Working capital of the enterprise: the concept, composition, structure, circulation. Material resources and indicators of their use, rationing of working capital. The personnel of the enterprise: main characteristics, classification according to various criteria. Payroll management.

6. Costs. The concept of costs. Classification of current costs: by economic elements, by cost items, by the method of cost attribution. The concept of the cost of production. Cost structure by calculation items.

7. The results of economic activity. Performance indicators. Types of profit, directions of profit use. Net profit calculation formula. CVP analysis: assumptions for its use, break-even point, profitability threshold, financial strength margin, and margin of safety. The pricing policy of a company. Pricing methods and objectives. Pricing factors.

Field of science 3. World Economy

1. Basics of the world economy. The concept, idea, and structural characteristics of the world economy. Theories of the world economy. Features of modern concepts of the world economy.

Main stages of world economic formation and development. Features of the current stage. Mechanisms of the world economy. Actors of the world economy.

2. The resources of the world economy. The concept and content of the world economy resources. Natural resources. The problem of economic growth and resource consumption. Distribution of resources between countries. Research, educational, and information resources. Human capital and human resources in the world economy. Financial resources. Capital and technological resources. Distribution of resources by country.

3. The exchange of resources in the world economy. International trade. State regulation of international trade. International movement of capital, technology and information. International migration of human resources.

4. International coordination of economic policy. International economic treaties. International economic integration. International regional integration. The transnationalization of the world economy. The activities of international economic organizations.

5. International business in the main sectors of the world economy. Agro-industrial complex. Fuel and energy complex. Chemical complex. Metallurgical complex. Machine-building complex. World transport.

6. The economy of foreign countries and regions. The national economy in the system of world economic relations. International competitiveness of national economies. The correlation of national and international mechanisms for regulating economic processes.

7. The globalization of the world economy and the global problems of our time. The idea and content of globalization as a category. The driving forces and contradictions of globalization. Global problems of the world economy and ways to solve them. The connection of global problems with the ongoing processes in the world economy. The model of sustainable development, scenarios of sustainable development.

Field of science 4. Finance

1. Fundamentals of financial theory, characteristics of sustainable (ESG) finance. The concept and functions of finance. The financial system, its evolution, the gold standard, the modern fiat money system. Financial resources and their composition. ESG principles and instruments of sustainable finance.

2. Public (state) finance. The nature and functions of public finance. Monetary policy and inflation management. Fiscal policy and taxation, types of taxes. The state budget system, budget balance, content, and forms of public debt.

3. Corporate finance of business entities. The nature and functions of corporate finance. Sources of capital formation and concepts of optimal capital structure. Budget, income and expenses, profit of enterprises. Evaluation of investment projects (NPV, IRR, PP). Liquidity maintenance instruments. Deposit and credit banking activities. Insurance activity.

4. Household finances. The essence and functions of household finances. Household finance planning. Household budget. Government regulation of household finances. Sources of income and directions of spending of the population.

5. Financial markets and institutions. Financial intermediation and financial intermediaries. Types of financial markets. Financial market participants. Financial instruments. Derivative financial instruments.

6. International finance. International financial markets. International financial organizations. International investments. International settlements. IMF special drawing rights (SDR).

7. Digital finance. Virtual currencies (Bitcoin, altcoins, stablecoins, meme coins). Non-fungible tokens and asset digitalization. Central bank digital currencies (CBDCs). Online and mobile banking.

Field of science 5. Mathematical, statistical and instrumental methods in economics

1. The nature of econometrics and economic data. Characteristics of economic data. Types of variables. Stages of econometric research. The concept of qualitative variables. Qualitative independent variables and their use in modeling. Coefficients for qualitative independent variables. The concept of simple regression.

2. The basic concepts of statistical and regression analysis. Main statistical indicators: mathematical expectation, variance, covariance. Variance and correlation analysis. Testing the significance of the model (F-criterion), testing the significance of the coefficients in the model (t-criterion). R². Confidence intervals.

3. Multiple regression model. The properties of the estimators. CLR model. The concept of an estimator in econometrics. The concept of the method of least squares. The main provisions of the CLR model (Gauss-Markov theorem) and the consequences of violations of the provisions.

4. Violation of the provisions of the CLR model. Causes and consequences of violation of the first provision of the CLR model: incorrect choice of regressors, nonlinearity, variability of model parameters. The causes and consequences of multicollinearity and non-zero expectation of model residuals. The concept of homo/heteroscedasticity of residues. Homo/heteroscedasticity tests. The concept of autocorrelation of residues. The concept of endogeneity. Examples of endogeneity. The concept of outliers in a model.

5. Optimization methods. The essence of optimization methods and tasks. The main classes of optimization problems in economics. Numerical optimization methods. Network planning. Multi-criteria optimization.

6. Input-output analysis models. Basic concepts of input and output analysis. Leontiev's intersectoral balance. DEA analysis.

7. Theory of sets. The concept of a set. Set operations. Properties of operations. Fuzzy sets. The algebra of fuzzy sets. Geometric interpretation. Fuzzy logic.

4. Preparation materials

4.1. Recommended reading

Field of science 1. Economic theory

Reading list in English

1. Blanchard O. Macroeconomics. 6th ed. Pearson. 2016. 622 p. URL:// https://spada.uns.ac.id/pluginfile.php/153035/mod_resource/content/2/macroeconomics-blanchard-6th-edition.pdf
2. Cowell F. A. Microeconomics: principles and analysis. – Oxford University Press, 2018 URL https://rowkish.wordpress.com/wp-content/uploads/2019/09/microeconomics-principles-and-analysis.pdf
3. Mankiw G. Macroeconomics. Harvard University. 2019. 719 p. URL:// https://namdu.uz/media/Books/pdf/2024/10/14/NamDU-ARM-13418-Macroeconomics.pdf
4. McConnell, Campbell R. Economics : principles, problems, and policies / Campbell R. McConnell, Stanley L. Brue, Sean M. Flynn. 21 th ed. p. cm. The McGraw-Hill series in economics, 2018. 917 p. URL:// https://ieoeconomics.org.cn/wp-content/uploads/2024/11/Economics-Irwin-Economics-21th-Campbell-McConnell.pdf
5. Microeconomics, 9th Edition, by Robert Pindyck and Daniel Rubinfeld. Pearson Education. 2018 https://openlibrary.telkomuniversity.ac.id/home/catalog/id/172849/slug/microeconomics-ninth-edition-global-edition.html
6. Principles of Microeconomics by I. Irvine and D. Curtis. Lyryx Learning Inc. 2021 URL:// https://collection.bccampus.ca/textbooks/principles-of-microeconomics-2021a-lyryx-lyryx-287 .

7. Principles of Microeconomics 3e, Steven A. Greenlaw, University of Mary Washington, David Shapiro, Pennsylvania State University, Daniel Macdonald, California State University, San Bernadino. 2022 Rice University. URL: <https://openstax.org/books/principles-microeconomics-3e/pages/preface> .

Field of science 2. Regional and Sectoral economy

Reading list in English

1. Cost and cost and management accounting study material executive programme. Printed at M. P. Printers. 2017. 603 p. URL: https://www.icsi.edu/media/webmodules/publications/FULL_BOOK_PP-CMA-2017-JULY_4.pdf .
2. Drury C. Management and Cost Accounting, 10th Edition Publisher: Annabel Ainscow, 2018. 866 p. URL: https://psv4.userapi.com/s/v1/d/mvJIO5u3nWC1YMb33DgrGaiwkO4dqM9opr9EuSimV9JYKLrq2WXYzbvtd8tJxdF8p-UoZQ61xdVlAs7unYV8-9ZP2oQq0b24tVP2b35868s4WoyKm75w9g/Management_and_Cost_Accounting_10th_edition.pdf .
3. Hoover E.M. and Giarratani F. An Introduction to Regional Economics. West Virginia University, 164 p. URL: <https://scispace.com/pdf/an-introduction-to-regional-economics-1u5iez3kz3.pdf> .
4. Pravdiuk N., Koval L., Koval O., Lepetan I. Organization of accounting of assets, liabilities and results of enterprise activities. Monograph. Košice: Vysoká škola bezpečnostného manažérstva v Košiciach, 2023. – 389 p. URL: <https://philpapers.org/archive/BEZOOA.pdf> .
5. Temple M. Regional economics. Red Globe Press London. 301 p. URL: <https://link.springer.com/book/10.1007/978-1-349-23364-9>

Field of science 3. World Economy

Reading list in English

1. Krugman P.R., Obstfeld M. & Melitz M. International Economics Theory and Policy. 11th ed. Pearson. 2018. 803 p. URL: <https://cdn.prexams.com/8978/International%20Economics%20Theory%20and%20Policy%20Book%209th%20Edition.pdf> .
2. Salvatore D. International Economics. 11th ed. Wiley. 2013. 836 p. URL: https://www.academia.edu/105955334/Dominick_Salvatore_International_Economics .
3. Viphindartin S. & Bawono S. International Economics. Triple Nine Communication Press. Singapore 2021. 142 p. URL: https://www.researchgate.net/publication/362846929_International_Economics .

Field of science 4. Finance

Reading list in English

1. Alexander G.J., Sharpe W.F., Bailey J.V. Fundamentals of Investments. 3rd edition. 2000. <https://archive.org/details/fundamentalsofin00gord/mode/2up>
2. Bradley R.A. Principles of Corporate Finance/ Richard A. Bradley, Stewart C. Myers, Franklin Allen. 10th edition. McGraw-Hill Education, 2011. https://marcelodelfino.net/files/Brealey_Myers_y_Allen_2009_Principles_of_corporate_finance.pdf
3. Brigham E.F., Ehrhardt M. Financial Management: Theory and Practice / South-Western, a part of Cengage Learning. 2011. 1152 p. <https://handoutset.com/wp-content/uploads/2022/03/FinancialManagement-Theory-and-Practice-13th-Edition-by-Eugene-F.->

BrighamMichael-C.-Ehrhardt.pdf .
4. Campbell J. Household finance, 2006. URL: https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1540-6261.2006.00883.x .
5. Foundation S. Personal finance. URL: https://www.infobooks.org/pdfview/3226-personal-finance-the-saylor-foundation/ .
6. Gruber J. Public Finance and Public Policy. New York: Worth Publications, 2005. URL: https://el2019.kimep.kz/pluginfile.php?file=%2F60688%2Fmod_resource%2Fcontent%2F2%2FPublic%20Finance%20and%20Public%20Policy_Gruber.pdf .
7. Huerta de Soto J. Money, Bank Credit, and Economic Cycles. 4th edition. MisesInstitute Auburn Alabama, 2009. https://www.jesushuertadesoto.com/money-bank-credit-and-economic-cycles/ .
8. International Finance: Theory and Policy, by Paul R. Krugman, Maurice Obstfeld, Marc J. Melitz. Pearson MyLab Economics https://api.pageplace.de/preview/DT0400.9781292416908_A43188215/preview-9781292416908_A43188215.pdf .
9. Security Analysis by Benjamin Graham and David L. Dodd, McGrawHill chrome-extension://efaidnbmninnibpcapjpcglclefindmkaj/https://glenbradford.com/files/Stocks/security-analysis-benjamin-graham-6th-edition-pdf-february-24-2010-12-08-am-3-0-meg.pdf

Field of science 5. Mathematical, statistical and instrumental methods in economics

Reading list in English
1. Mathematics for economists. Lovely Professional University, 2014 URL: https://ncjindalps.com/pdf/MATHEMATICS/MATHEMATICS%20FOR%20ECONOMISTS%20-%20LPU.pdf
2. Osborne M. J. Mathematical methods for economic theory. University of Toronto. 2016. URL: https://mjo.osborne.economics.utoronto.ca/index.php/tutorial/index/1/toc
3. Verbeek Marno. A guide to modern econometrics / Marno Verbeek. – 2nd ed. Erasmus University Rotterdam. ISBN 0-470-85773-0. 449 p. URL: https://thenigerianprofessionalaccountant.wordpress.com/wp-content/uploads/2013/04/modern-econometrics.pdf
4. Wooldridge Jeffrey M. Introductory Econometrics: A Modern Approach, Fifth Edition. Michigan State University. 2013. 862 p. URL: http://jaimev.com/eco/4c1-ecomet/jeffrey-m-wooldridge--econometrics--book.pdf

4.2. Recommended online courses

Field of science 1. Economic Theory

Online courses in English	Link	Course description
1. Microeconomics Principles (Coursera)	https://www.coursera.org/learn/microeconomics#syllabus	The course introduces key concepts and approaches in the field of microeconomics, which studies the behavior of individual economic agents (consumers and firms) and their interactions in markets. The course materials are delivered through video lectures, texts, and interactive components. By the end of the course, participants will gain a solid

		understanding of the markets, demand and supply curves, elasticity; consumer theory; market structures; market failures, information asymmetry, and the role of government.
2. Microeconomics: The Power of Markets (Coursera):	URL://https://www.coursera.org/learn/microeconomics-part1#syllabus	This course serves as an introduction to microeconomic market theory. The course materials are delivered through video lectures, texts, and interactive components. By the end of the course, participants will gain a solid understanding of the concept of scarcity, the market model encompassing demand and supply, and the impact of government intervention in perfectly competitive markets.
3. The Power of Markets I: The Basics of Supply and Demand and Consumer Behavior (Coursera):	URL://https://www.coursera.org/learn/market-power#syllabus	The course introduces key concepts and approaches in microeconomics. The course materials are delivered through video lectures, texts, and interactive components. As a result of the course, students will acquire knowledge of market participants, the concept of opportunity cost, key determinants of demand and supply; the ability to predict market outcomes and assess the impact of government policies on these outcomes; consumer behavior in light of preferences and budget constraints; and the concept of goods allocation among members of society.
4. The Power of Markets II: Market Structure and Firm Behavior (Coursera):	URL://https://www.coursera.org/learn/market-structure	The course introduces key concepts and approaches in microeconomics. Materials are presented through video lectures, section-end quizzes, and case studies. Upon completion of the course, students will gain a solid understanding of production theory, cost structures, the functioning of perfectly competitive markets, monopoly dynamics, and the nature and implications of monopoly power.
5. Principles of Economics: Macroeconomics - The Big Picture (Coursera):	URL://https://www.coursera.org/learn/principles-of-economics-macroeconomics	The course introduces the main macroeconomic indicators, their interrelations, and their practical relevance for business and everyday life, without delving into complex mathematical models. Course materials include video lectures, readings, numerous practical exercises, and quizzes. Upon completion of the course, participants will acquire knowledge of key macroeconomic indicators and their measurement methods, fundamental macroeconomic relationships, the

		mechanisms of monetary and fiscal policy, and basic short-run macroeconomic models (AD–AS).
6. Macroeconomics: Foundations and Insights (Coursera)	URL://https://www.coursera.org/learn/macroeconomics-jgu	The course focuses on the microfoundations of macroeconomics—that is, how the behavior of individual agents shapes aggregate economic outcomes—and explores modern models and debates, including neoclassical and New Keynesian approaches. Materials include video lectures, readings, graded quizzes, analytical case studies, and problem-based assignments. Upon completion of the course, participants will acquire knowledge of macroeconomic fundamentals, investment behavior, money demand and monetary policy, short-run macroeconomic models (including IS-LM and the Mundell-Fleming model for open economies), long-run economic growth theories (Solow, Lucas, and Romer models), fiscal policy and public debt, as well as the broader framework of macroeconomic policy.
7. Macroeconomics for Business Management (Coursera)	URL://https://www.coursera.org/learn/macroeconomics-for-business-management	The course has a practical orientation and equips managers with the knowledge necessary for making more effective financial, marketing, operational, and strategic decisions, as well as for protecting businesses from macroeconomic shocks. The course materials include video lectures, business-oriented readings, practical exercises, business cases, interviews with practitioners, and quizzes. Students will acquire knowledge of macroeconomics and its relevance to business, including the measurement of economic activity, inflation and unemployment, monetary policy and financial markets, fiscal policy and public finance, international macroeconomics, and the application of macroeconomic analysis to managerial decision-making.

Field of science 2. Regional and Sectoral economy

Online courses in English	Link	Course description
1. Economic Geography of the Industrial World: (UC Berkeley)	https://www.openculture.com/economic-geography-of-the-industrial-world-a-free-course-from-uc-berkeley	The course explores the specific features of industrial development across various territories and regions of the world. The course materials are delivered through video lectures, texts, and interactive components.

		Participants will acquire knowledge of industrialization, urbanization, and economic growth in the Global North; the geographical dimensions of production, retail trade and finance.
2. Managerial accounting fundamentals (Coursera)	https://www.coursera.org/learn/uva-darden-managerial-accounting	The course introduces key concepts and approaches in cost accounting at enterprises. The course materials are delivered through video lectures, texts, and interactive components. The course consists of four thematic modules: cost classification; cost-volume-profit analysis; calculation and allocation of overhead rates under traditional and activity-based cost allocation systems; Relevant and irrelevant costs and benefits. Each module focuses on a specific aspect of the subject. By the end of the course, students will have acquired knowledge and practical skills in cost accounting for enterprises and will be able to apply theoretical models to the analysis of specific cases.
3. Cost accounting (Coursera)	https://www.coursera.org/specializations/costaccounting#courses	This course provides students with theoretical foundations and practical tools for calculating costs and assessing enterprise performance. Learning materials include video lectures, reading texts, and interactive activities. The course is organized into three thematic series: (1) Basics of Cost Accounting: Calculating the Cost of Production; (2) Cost Accounting: Profit and Loss Calculation; and (3) Cost Accounting: Decision Making. Throughout the course, students develop competencies in product planning, resource allocation, capacity and inventory management, product assortment, cost and result accounting, and production process analysis.

Field of science 3. World Economy

Online courses in English	Link	Course description
1. Global Strategy I: How the Global Economy Works (Coursera)	https://www.coursera.org/learn/global-strategy	The course introduces key concepts and approaches in global economics, focusing on the evolution of the global economy, international trade rules, and the operations of multinational corporations. The course materials are delivered through video lectures, texts, and interactive components. The course is structured progressively, from basic concepts to more advanced topics. By the end of the course, participants will have a solid

		understanding of key theories and concepts in global economics and will be able to analyze the implications of globalization for international business.
2. International Economics (XuetangX)	URL: https://www.xuetangx.com/course/suibe02011003175intl/23919472?channel=home_course_ad	The course introduces key concepts and approaches in international economics, focusing on trade theories, trade policies, exchange rates, and balance of payments analysis. Course materials are delivered through video lectures, texts, and interactive components, structured progressively from basic concepts to advanced topics. By the end of the course, participants will have a solid understanding of fundamental theories in international economics and will be able to analyze cross-border economic interactions and evaluate associated policy outcomes.
3. International Economics (XuetangX)	https://www.xuetangx.com/course/dufe0201bt0841intl/23935516	The course aims to foster analytical skills in international economics, covering trade patterns, trade policies, exchange rates, and global financial markets, with a focus on both theoretical and applied topics. The course includes lecture materials accompanied by presentations and video recordings, with practical assignments to reinforce learning. Participants will be able to formulate research questions, use discipline-specific methods, and apply theoretical models to analyze real-world economic issues.

Field of science 4. Finance

Online courses in English	Link	Course description
1. Introduction to the Topic of Finance Essentials (openedu.ru)	https://openedu.ru/course/spbu/FININTRO/?session=sself_paced_2022	The course introduces modern financial theories and their practical application to the field of corporate finance. The course materials are delivered through video lectures, texts, and interactive components. Upon completion of the course, participants will acquire knowledge of the corporate financial system, the sources and purposes of management information, financial analysis, and investment principles.
2. Public Economics (openedu.ru)	https://openedu.ru/course/hse/PUBECONOM/?session=2023	The course introduces the foundations of public economics theory. The course materials are delivered through video lectures, texts, and interactive components. Upon completion of the course, participants will have acquired knowledge of the role of government in a market economy, the design

		and scope of government intervention, the politics of public economics, the functioning of government institutions, and the relationship between government and society.
3. Investments and Valuation (openedu.ru)	https://openedu.ru/course/spbu/FININVEST/?session=self_paced_2022	The course introduces key concepts and approaches in investments. The course materials are delivered through video lectures, texts, and interactive components. As a result of the course, participants will acquire knowledge of the fundamentals of investment appraisal, various appraisal techniques, sources of funding, the cost of equity and the weighted average cost of capital (WACC), as well as valuation methods.
4. Financial Investment and Risk Management (openedu.ru)	https://openedu.ru/course/spbstu/FINIRMAN/?session=spring_2024	The course introduces key concepts and approaches for making investment decisions in the financial market in the short and long term. The course materials are delivered through video lectures, texts, and interactive components. As a result of the course, participants will acquire knowledge of the nature of financial investment uncertainty and the rationale for regulation; behavioral finance and technical analysis; asset management; the Capital Market Pricing model; international diversification; and recent trends in asset and wealth management.
5. ESG Finance (openedu.ru)	https://openedu.ru/course/spbu/FINESG/?session=self_paced_2022	This course explores the concept of ESG and its relevance to the financial industry. The course materials are delivered through video lectures, texts, and interactive components. Students will acquire knowledge of the basic concepts of ESG; the impacts of supranational and national agreements and legislative changes; ESG finance products, valuation, portfolio selection strategies; ESG reporting standards; ESG rating methodologies.

Field of science 5. Mathematical, statistical and instrumental methods in economics

Online courses in English	Link	Course description
1. Mathematical Economics (onlinecourses.swayam)	https://onlinecourses.swayam2.ac.in/cec21_hs19/preview	This course simplifies the study of economics using mathematics, making it accessible for students across disciplines, including engineering, architecture, medicine, finance, and management. Key objectives include building mathematical models, solving complex problems, measuring change effects, and improving decision-making processes while exploring economic dynamics.

2. Econometrics: Methods and Applications (Coursera)	https://www.coursera.org/learn/erasmus-econometrics	This course teaches data translation into forecast models for business/economics decision-making. The course covers regression analysis, model specification, binary choice, and time series data through video lectures and exercises. The course provides a deep understanding of the above concepts and themes, as well as the development of applied competencies.
3. Enjoyable Econometrics (Coursera)	https://www.coursera.org/learn/enjoyableeconometrics	This course demonstrates how econometric methods address real-world questions through data collection and adaptive modeling, emphasizing practical applications in unconventional contexts such as custom surveys and experiments. It offers an in-depth understanding of these topics while fostering the development of applied skills.