MIF COURSES

Program «Masters in Finance»
Academic year 2022 – 2023

NES
New Economic School

MIF students have to earn 20 credits. They will also have an opportunity to audit two extra courses, i.e., take courses without any academic requirements of either doing homework assignments or passing exams.

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101. Foundations of Finance (required course, 1 credit)
Instructor: Prof. Sergey Kovbasyuk, Ph.D. TSE, NES professor
Mon Sept 5, 12, 19, 26, Oct 3, 10, 17; Exam Oct 24
Prerequisites: -

This course is the core finance course. It provides an overview over the most common types of financial securities and modern financial markets, covering core topics of corporate finance and investments: the time value of money, opportunity cost, arbitrage pricing, bond valuation, stock valuation, portfolio theory, asset pricing, derivatives, and market efficiency.

102. Data Analysis in Python (required course, 1 credit)
Instructor: Prof. Mikhail Gustokashin, HSE
Sat Sept 3, 10, 17, 24, Oct 1, 8, 15; Exam Oct 22
Prerequisites: -

Data analysis is an integral part of modern finance. This course teaches you how to work with Python, a popular open-source software for analyzing data, presenting results, and making informative decisions based on analytics. You will learn basic techniques and hands-on tools for more advanced, practical applications.

103. Compliance and Ethics (0.5 credit)
Instructor: Vladimir Berezansky, J.D. American University, Director PTC
Tue Sept 7, 14, 21; Exam Sept 28
Prerequisites: -

This course provides an introduction to the vital role that financial regulatory compliance plays, including why and how it developed in a distinct discipline. The topics include anti-money laundering (AML), know your customer (KYC), combating the financial terrorism (CFT), and implementing trade sanctions regimes. The course helps to develop a holistic bird's-eye view picture of the compliance function within financial institutions as well as gain a deeper on-the-ground understanding of the in-house quasi-regulatory role that a compliance officer and/or department must fulfill.

104. History of Banking in Russia (0.5 credit)
Instructor: Vladimir Berezansky, J.D. American University, Director PTC
Tue Oct 5, 12, 19; Exam Oct 26
Prerequisites: -

This will be a liberal arts-type course tracing the history of banking, both as an institution as well as a commercial activity, in Russia. We will consider the earliest types of banking activity in Russia, the influence of foreign (primarily German) institutions on Russian banking, the collapse of traditional banking after the Bolshevik Revolution, and its painful revitalization, in fits and starts, with the rebirth of a post-Soviet Russia.

105. Data Visualization in Business (1 credit)
Instructor: Kim Voronin
Thu Sept 1, 8, 15, 22, 29, Oct 6, 13; No Exam (final project)
Prerequisites: -

The goal of the courses is to teach non-designers how to visualize information in a nicely looking, understandable way. This course will help you to learn how to prepare professionally looking presentations about projects, financial reports, and other material. You will also learn how to use Qlik Sense for creating interactive dashboards. Knowledge of data analytics tools for business intelligence is valuable in financial community.

106. Math Refresher (0.5 credit)
Instructor: Prof. Pavel Katyshev, NES professor
Tue Sept 13, 20, 27, Oct 4; Exam Sept 11
Prerequisites: -

This half-module course is devoted to the review of the probability theory and statistics as well as some other selective concepts from mathematics often used in finance. It includes four three-hour classes and several seminars. This course will be useful for those who need to brush up their math skills and prepare themselves for more advanced material of the curriculum.

107. Business English (0.5 credit)
Instructor: Irina Simpson, Ph.D. U of Virginia, NES lecturer
Sat Sept 3, 10, 17, 24; Exam Oct 1
Prerequisites: -

English is the dominant language of global business and finance. This intensive course will help you to improve professional business vocabulary, sharpen your skills for conducting business negotiations and correspondence, facilitate your understanding of professional texts and broaden your cultural knowledge about the international business environment. It will develop the linguistic and cultural competence-and confidence-needed to sustain strong relationship with your business partners and clients.

201. Investments (required course, 1 credit)
Instructor: Prof. Anna Obizhaeva, Ph.D. MIT Sloan, NES professor
Thu Oct 27, Nov 3, 10, 17, 24, Dec 1, 8; Exam Dec 15
Prerequisites: 101

This course uses a combination of cases, lectures, and class discussion to examine how money is managed by professional money managers. The course involves a mixture of finance and economics, theory and hands-on exercises in Python. It will review classical topics in the field of investments and introduce frontier research on the subject. The course will also touch on a number of public policy issues likely to be important for years to come and provide students with a framework within which these issues can be addresses in a useful manner.

202. Financial Accounting (required course, 1 credit)
Instructor: Prof. Davide Cianciaruso, Ph.D. Northwestern,
NES Professor
Tue Nov 1, 8, 15, 22, 29, Dec 6, 13; Exam Dec 20
Prerequisites: -

This course introduces you to fundamental accounting concepts and principles. It provides the skills necessary to understand the content of financial statements and how they interact with each other. You will also learn to construct and analyze basic financial statements. The goal is not to train you as an accountant but rather to help you become informed user of financial statements.

203. Modelling in Corporate Finance (1 credit)
Instructor: Andrei Nagurnyi
Sat Nov 5, 12, 18, 25, Fri Dec 2, Sat Dec 10, 17(Project)
Prerequisites: 101

The key objectives of the course are to discuss standards and techniques accepted by corporate finance professionals worldwide, to utilize standard functionality of MS Excel for easy-going modelling, and to develop a project financial model applying the rules and techniques learned. The course helps to master modelling techniques widely used in financial industry.

204. Microeconomics (1 credit)
Instructor: Prof. Elena Paltseva Ph.D. SSE, SITE professor
Wed Nov 2, 9, 16, 23, 30 Dec 7, 14, Exam Dec 21
Prerequisites: -

This course shows how economic theory can be used to address a wide range of questions on business strategy; it is adapted to cover microeconomics topics that are particularly relevant for finance. The topics include market competition, regulation and government interventions, incentives, firm size, and others. These issues are analyzed applying a game-theoretical approach to strategic behavior of market participants. By the end of the course students will master important concepts of adverse selection and moral hazard.

205. Trading Strategies (0.5 credit)
Instructor: Dmitry Muravjev, Ph.D. UIUC, MSU Professor
Sat Oct 29, Nov 5, 12, 19 (Project)
Prerequisites: 101, 102

This course focuses on the practical aspects of quantitative investing. It covers classic trading strategies in the stock market as well as general principles that underlie them. Students will learn how to apply factor models, how information advantage and uninformed price pressure can help generate superior returns, how transaction and short sale costs affect for the profitability among a number of other practical aspects of investment.

206. Business Communications in Finance (0.5 credit)
Instructor: Maxim Ilyakhov, к.п.н, editor Код
Mon Oct 31, Nov 7, 14 Exam Nov 21
Prerequisites: -

This course teaches how to communicate effectively in various business situations. You will get practical advices on how to choose relevant means of communication, express your ideas in a clear and concise manner, and write reports, press-releases, letters, emails professionally. Video preview.

207. Public Speaking (1 credit)
Instructor: Yury Maisky and Irina Suvorova
Fri Oct 28, Nov 11, Mon Nov 28, Dec 5, Fri Dec 9,
Mon Dec 12, Fri Dec 16, Exam Dec 19
Prerequisites: -

This course will help you to improve your public speaking skills. You will learn useful tricks of how to train your voice, how to use pauses and gestures, how to structure your speech, how to speak on stage and not to be afraid of speaking in front of the camera, and a lot more. You will learn effective ways of how to introduce yourself, speak about your project or idea, and improvise.

301. Derivatives (required course, 1 credit)
Instructor: Prof. Olga Obizhaeva, Ph.D. LSE, SSE Professor
Mon Jan 9, Thu Jan 12, Jan 19, 26 Feb 2, 9, Fri Feb 17; Exam Mar 2
Prerequisites: 101, 102

This is an introductory course to the theory and practice of financial engineering and derivatives. It will cover forwards and futures contracts, binomial and Black-Scholes-Merton models for option pricing, hedging and replication of derivatives, implied and historical volatility, volatility surface, structured products, and other topics. The course is especially relevant to students interested in financial markets and securities trading.

302. Corporate Finance (required course, 1 credit)
Instructor: Prof. Pavle Radicevic, Ph.D. UNSW, NES professor
Tue Jan 10, 17, 24, 31; Feb 7, 14, 21; Exam Feb 28
Prerequisites: 101, 202

The goal of this course is to familiarize you with the introductory-level
topics in corporate finance and to discuss the most important financial decisions of a firm. The core of the course is the analysis of capital budgeting, capital structure decisions and risk management. The capital budgeting topics will cover various techniques of evaluating and comparing projects. The capital structure topics will examine the choice of sources of finance for a firm; in particular, the choice between debt and equity financing and how does this relate to the firm's investment evaluation.

303. Financial Econometrics (1 credit)
Instructor: Prof. Olga Kuzmina, Ph.D. Columbia GSB, NES professor
Sat Jan 14, Mon Jan 16, Sat Jan 21, 30, Mon Feb 13,
Sat Feb 18, Mon Feb 20 (Project)
Prerequisites: 101, 102

This course introduces econometric techniques and methods used for the analysis of cross-sectional and time-series financial data. It explicitly focuses on the distinction between the two main uses of data analysis: prediction and causal inference. The topics include randomized experiments, linear regressions, hypotheses testing, interpretation of regression results, endogeneity, models with limited dependent variables, and introduction to forecasting. The course helps to acquire important intuition behind econometric techniques and equips students with hands-on tools for analyzing data.

304. Risk Management (1 credit)
Instructor: Prof. Alexei Goriaev Ph.D. Tilburg, NES professor
Sat Jan 14, 21,28 Feb 4, 11, 18, 25; Exam Mar 4
Prerequisites: 101, 201

This course introduces main tools in risk management. These tools are presented in the context of a holistic framework of the enterprise-wide risk management, which includes identification, evaluation, treatment, and monitoring of risks. The core focus is on measuring market and credit risk using Value at Risk (VaR) as well as other metrics. Business cases are used to highlight important issues in implementation of risk management strategies in practice and the role of CRO in firms.

305. Macroeconomics (1 credit)
Instructor: Prof. Oleg Shibanov Ph.D. LBS, NES professor
Wed Jan 11, 18, 25; Feb 1, 8, 15, 22; Exam Mar 1
Prerequisites: -

The course provides an overview of main concepts in macroeconomics. The topics include national income accounting, economic growth, inflation, exchange rates, capital flows, and others. The course also covers basic macroeconomic models as well as macroeconomic public policy issues for developed and developing economies.

306. FinTech (1 credit)
Instructor: Sergei Ivliev, к.э.н., Vlinder
Fri Jan 13, 20, 27; Feb 3, 10, Thu Feb 16; Exam/presentations Mar 3
Prerequisites:

The course is designed to give a helicopter view of the digital assets ecosystem emerged after the introduction of the Bitcoin in 2009. You will learn about blockchain protocols, token issuance, cryptocurrency exchanges, decentralized finance (DeFi) and decentralized autonomous organizations (DAO) applications. Along the way, you will get introduced to the world of the modern cryptography.

401. Derivatives: Applied course (1 credit)

Instructor: Roland Grinis Ph.D. Oxford, MPTI
Dates: TO BE ADDED, module 4
Prerequisites: 101, 102, 301

This applied course builds upon a core derivatives course. It equips students with hands-on tools on how to model derivatives and properly calculate risks involved. The topics include modelling stochastic volatility and calibration of volatility surface, analysis of financial securities in interest rates and credit markets as well as calculations of various valuation adjustments (xVA) in cross-currency hybrid models. The course is especially relevant to students interested in quantitative finance.

402. Private Equity and Venture Capital (1 credit)
Instructor: Dmitry Lukin Ph.D. INSEAD, Rhodiola Capital
Dates: TO BE ADDED, module 4
Prerequisites: 101, 102, 201, 202, 301, 302

The course is designed to provide a real world understanding of the private equity marketplace from the perspective of the private equity investor. It helps to understand key issues in the private equity financing process and the interaction between entrepreneurs and private equity investors, ways to employ corporate finance principles (such as contingent claims and contracting theory) for the analytical valuation of new ventures and buyouts as well as the structure and essential institutional features of the global private equity industry.

403. AI in Business (1 credit)
Instructor: Prof. Darya Dzyabura, Ph.D. MIT Sloan, NES Professor
Dates: TO BE ADDED, module 4
Prerequisites: 102

From product design and innovation, to brand metrics and advertising effectiveness, firms are increasingly making their decisions based on data and analytics. This course provides an overview of AI methods and their applications in business, with emphasis on problems in marketing. The course uses data-based assignments and business cases to introduce core marketing concepts and methods.

404. Corporate Hedging (1 credit)
Instructor: Prof. Pavle Radicevic, Ph.D. UNSW, NES professor
Dates: TO BE ADDED, module 4
Prerequisites: 101, 102, 201, 202, 301, 302

This course will introduce you to risk management from the perspective of non-financial corporations. You will learn:1) what risks companies should manage and why, 2) how risk management policies should be developed and organized, and 3) how the various types of risk can be measured and managed. In the process, you will gain critical new insight into the operational problems that today's corporations face, and how financial market conditions affect firms' hedging policies.

405. Law Regulations for Securities Market (1 credit)
Instructor: Prof. Anton Selivanovsky, к.ю.н., HSE Professor
Dates: TO BE ADDED, module 4
Prerequisites: 101, 102, 201, 202, 301

This course introduces you to financial instruments and market participants in securities market. You will study specifics of main types of agreements and legal disputes. The course will focus on risks facing by market participants and involve discussion of cases and examples from practice, mostly concerning Russian businesses.

406. Global Finance Seminar (0.5 credits)
Instructor: Alexei Kuptsov, Ph.D. NYU, senior quant, Citi Group
Dates: TO BE ADDED, module 4
Prerequisites: 101, 201, 202, 301

The goal of this courses is to introduce you to the professional finance community worldwide and broaden your horizons. You will have an opportunity to discuss a number of important topics with experts working in financial sector abroad.

501. Fixed Income (1 credit)
Instructor: Vladimir Krasik Ph.D. NYU, Head of Financial Risk, Revolut
Dates: TO BE ADDED, module 5
Prerequisites: 101, 201, 301

This course provides a solid framework for the practical analysis of fixed income instruments: bonds, forwards/swaps and credit instruments. While the primary focus is the valuation of cash and derivative instruments and their real-world applications, the course also covers the general principles of the credit analysis and basic concepts of the portfolio management. Upon completing the course students should be able to calculate bond and swap prices, duration as well as understand swap and zero curves, credit spreads and basic credit derivatives, floating rate and inflation-linked bonds, structured bonds, bond indices and many other fixed income topics.
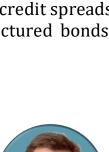
502. Advanced Corporate Finance (1 credit)
Instructor: Dmitry Lukin Ph.D. INSEAD, Rhodiola Capital
Dates: TO BE ADDED, module 5
Prerequisites: 101, 102, 202, 301

This course is designed as a continuation of a core corporate finance course and focuses on understanding financing and investment policies in a firm. Using both lectures and case studies, this course applies corporate finance theory to applications that include capital budgeting, cost of capital, valuation, dividend policy, raising capital, mergers and acquisitions as well as real options. The course is taught as a combination of lectures and HBS case studies.

503. Banking (1 credit)
Instructor: Vladimir Snorkin, Sber
Dates: TO BE ADDED, module 5
Prerequisites: 101, 102, 201, 202, 301, 302

This class covers some key themes in the commercial banking industry, including topics of value creation, pricing, risk management, and banking regulation. The goal is to provide a framework for understanding the sources of the revenue and fragilities of commercial banks. The topics include capital management, liquidity management, managing FX and IR risks as well as discussion of new trends in banking industry related to development of ecosystems, applications of AI and ML, and others.

504. Machine Learning in Business (1 credit)

Instructor: Ivan Stelmakh, Ph.D. CMU
Dates: TO BE ADDED, module 5
Prerequisites: 102

The course provides an advanced intro to machine learning. In the first part of the course (depth), we will demystify several classical ML algorithms by understanding their theoretical underpinnings and solving practical problems. In the second part of the course (breadth) we will get fascinated by the power of deep learning and discuss additional recent topics such as bias and fairness in ML.

505. Finance LAB (2 credits)
Instructor: TBA
TO BE ADDED, module 5
Prerequisites: 101, 102, 201, 202, 301, 302

This course provides a unique opportunity to tackle original topical research problem posed by experts from the financial community. Students are assigned to teams, and each team is assigned one such problem. The team's solution is presented and discussed at Finance LAB, opened to the NES community.

506. Individual Projects (2 credits)
Prerequisites: 101, 102, 201, 202, 301, 302

This course provides a unique opportunity to explore a topic you find interesting and make your own discovery. You will learn how to define the scope of your project, carry out the analysis, write up reports and present findings. You will have to overcome numerous challenges along the way. The experience is relevant for those who plan to apply for Ph.D. studies. Yet, it also helps to develop skill of problem solving, appreciated in business settings.

507. Managerial Decision Making (1 credit)

Instructor: Iya Malakhova
Dates: TO BE ADDED, module 5 (NEXT TIME IN 2024-2025)
Prerequisites: -

Many economic theories assume rational behavior of agents. Yet, the reality is different. The course addresses the question why do we have such a hard time making good choices. The goal is to understand how to establish decision-making process to produce good decisions, overcoming our psychological biases, reasons for irrationalities, etc. Upon completion of the course, you will be able to design decision-making process that would help you to improve choices not just for business reasons but also for personal live.

Academic Calendar for Year 2022-2023

Module ONE: 1 September 2022 - 26 October 2022
Module TWO: 27 October 2022 - 21 December 2022
Module THREE: 9 January 2023 – 4 March 2023
Module FOUR: 6 March 2023 – 30 April 2023
Module FIVE: 2 May 2023 – 1 July 2023

MIF FINAL EXAM 2023: SATURDAY 17 June 2023

Read carefully MIF NES Rules: here

Join Telegram channel for prospective students: here