

Thesis themes

Academic Year 2024/2025

Study Programme: Economics

Study Programme Leader: prof. Ing. Martin Macháček, Ph.D.

doc. Ing. Jiří Balcar, Ph.D., dep. 114, +420 597 322 291

- The impact of personality, soft skills and attitudes on labour market success
- Beauty and its implications for the labour market
- Microeconomic determinants of employment/wages
- Environmental migration
- Gender roles and gender in the labour market

doc. Ing. Martina Halásková, Ph.D., dept. 153, +420 597 322 315

- Financing of services of general interest
- Fiscal federalism - theoretical and practical aspects
- Economic and political aspects of corruption

prof. Ing. Jana Hančlová, CSc., dept. 157, +420 597 322 285

- Panel econometric modeling of energy consumption and emission reduction

doc. Ing. Martin Hodula, Ph.D., dept. 114, +420 597 322 214

- Non-bank financial intermediation (shadow banking, fintech, big tech)
- Regulation and financial stability
- Meta-analysis of selected macro-financial relations

doc. Ing. Jan Janků, Ph.D., dept. 114, +420 597 322 214

- (Re)distributional Effects of Monetary and Macro-Prudential Policy
- Interaction of Monetary and Macro-Prudential Policy in a Low Interest Rate Environment (LIRE) and in a High Inflation Period
- Economic Analysis of Politics: The Impact of Voter's Awareness and Other Macroeconomic and Socioeconomic Factors on the Electoral Performance of Populist and Extremist Political Parties
- Regional Impacts and Asymmetric Effects of Monetary Policy in State Districts

doc. Ing. Zuzana Kučerová, Ph.D., dept. 114, +420 597 322 405

- Monetary Policy, Communication of Central Banks and its Credibility in High Inflationary Episodes, the Role of Inflation Expectations and Determinants
- Financial cycle, Identification, Determinants, Synchronisation with Economic Cycle, Stabilisation Instruments of Macroeconomic Policies

prof. Dr. Ing. Jan Libich, dept. 114, +420 597 322 480

- Macroeconomic effects of demographic changes
- The optimal design of pension systems
- Monetary – fiscal policy interactions
- Bank runs and deposit insurance

- Financing tertiary education
- Financial stability and macroprudential policy

prof. Ing. Martin Macháček, Ph.D., dept. 114, +420 597 322 343

- Economic Impacts of Technological Transition in Disadvantaged Regions

doc. Ing. Aleš Melecký, Ph.D., dept. 114, +420 597 322 153

- Housing prices – meta-analysis
- Housing prices – housing affordability, regional differences in housing prices
- Determinants of housing affordability and spatial inequality
- Government debt management and fiscal sustainability
- Behavioral economics – experimental analysis of individual economic decision making
- Behavioral and experimental economics approaches to environmental problems

prof. Dr. Ing. Martin Melecký, Ph.D., dept. 114, +420 597 322 284

- Banking sector efficiency, capital reallocation, and equitable growth
- Climate change crisis, natural disasters, and disaster risk financing
- Green finance, ESG and impact investing
- State owned enterprises, state owned banks, and PPPs

prof. Ing. Richard Pospíšil, Ph.D., +420 732 285 453, richard.pospisil@upol.cz

- The economic and legal aspects of independence of Czech National Bank in relation to future membership of the Czech Republic in the Euro area
- Social entrepreneurship in the Czech Republic in the context of economic policy
- The instruments of the European Union to restore and maintain the fiscal discipline.

doc. Ing. Michaela Melecká Staníčková, Ph.D., dept. 120, +420 597 322 230

- Impacts of spending finances from EU Funds on regional development
- Economic resilience and adaptability of the territory to external shocks
- Spatial patterns of socio-economic differentiation and progressiveness of the territory
- Regional development and regional disparities
- Development potential and regional specialization as a competitive advantage of the territory
- Territorial dimension of societal inequalities

doc. Ing. Iveta Vrabková, Ph.D., dept. 153, +420 597 322 306

- Gaps in the performance of selected sectors of the public sector (health, education, security, culture, public administration)
- Latent performance factors of public programs (health insurance, social support, specific subsidy programs)
- Perspectives and limitations of distance forms of distribution of public services (in healthcare, social care, education)
- The influence of socio-economic factors on the concentration and deconcentration of the supply of public goods

Thesis themes

Academic Year 2024/2025

Study Programme: Economy and Management

Chairman of the Branch Committee:

prof. Ing. Petra Horváthová, Ph.D., MBA

doc. Ing. Dagmar Bařínová, Ph.D., dept. 117, dagmar.barinova@vsb.cz

- Personal bankruptcy and its economic and social impact on the debtor
- Insolvency proceedings from the position of the business entity

prof. Dr. Mgr. Ing. Alexander Bělohávek, dept. 119, alexander.belohlavek@vsb.cz

- Economic criteria for determining the method for settlement of international commercial disputes
- The method of settlement of disputes as qualitative aspect for assessing the value of a commercial case
- Center of Main Interest (COMI) from the viewpoint of European law as a means for determining business management strategy
- Risk factors in managing business from the perspective of the application of the Rome I Regulation
- Risk factors in managing business from the perspective of the application of the Brussels I Regulation

doc. Dr. Ing. Pavel Blecharz, dept. 152, pavel.blecharz@vsb.cz

- Use of Design of Experiments (Taguchi Approach) in Service Industry
- Use of advanced quality methods in product improvement

doc. Ing. Václav Friedrich, Ph.D., dep. 151, vaclav.friedrich@vsb.cz

- Measuring the competitiveness and performance of the business using advanced statistical methods
- Analysis and modelling of customer satisfaction using advanced statistical methods
- Analysis of individual and business attitudes towards sustainable development, the use of alternative energy sources and waste management

doc. Ing. Martina Halásková, Ph.D., dept. 153, martina.halaskova@vsb.cz

- Possibilities of using e-government to the management of public sector (public administration) institutions

prof. Ing. Jana Hančlová, CSc., dept. 157, jana.hanclova@vsb.cz

- Evaluation of the sectors efficiency in terms of energy consumption and emission reduction
- Improving business performance

prof. Ing. Petra Horváthová, Ph.D., MBA, dept. 115, petra.horvathova@vsb.cz

- Human resource management as a tool for increasing competitiveness of the organization
- Management of key positions and employees
- Application of talent management system in the enterprise
- Burnout syndrome and its impact on work and personal life

doc. Ing. Lenka Kauerová, CSc., dept. 116, lenka.kauerova@vsb.cz

- Measurement of effects of CRM concept implementation
- Cultural dimension and their significance in international trade
- CRM as elements of modern marketing
- Creativity and effectiveness of marketing communication
- Systemic approach to customer oriented management

doc. PhDr. ThDr. Lucjan Klimsza, Ph.D., dept. 115, lucjan.klimsza@vsb.cz

- The ethical theory of light and shadow site of leadership
- Descriptive ethics as a methodological approach to business ethics

doc. RNDr. Jaroslav Koutský, Ph.D., dept. 116, Jaroslav.Koutsky@ujep.cz

- Economic specialization in organisational and spatial perspective
- Transformation and restructuring processes on selected industries or economic subjects

doc. Ing. Michal Krajňák, Ph.D., MBA, LL.M, dept. 117, michal.krajnak@vsb.cz

- Quantification of the tax burden for small and medium-sized enterprises in the environment of the tax system of the Czech Republic
- Evaluation of the influence of tax and Levy burden on labor costs of the company in the business environment of the Czech Republic

doc. Ing. Lukoszová Xenie, Ph.D., dept. 152, xenie.lukoszova@vsb.cz

- Supply chain management
- Modern purchasing directions in the enterprise

doc. Ing. Marie Mikušová, Ph.D., dept. 115, marie.mikusova@vsb.cz

- Application of the crisis management system in the enterprises

prof. Mgr. Maciej Mitrega, PhD., dept. 116, maciej.mitrega@vsb.cz

- Building blocks of dynamic capabilities in Central and Eastern European (CEE) firms
- Building blocks of dynamic marketing capabilities – insights from industry
- Social sustainability in business strategies
- Power concepts and power dynamics in inter-organizational relationships
- Marketing capabilities of CEE companies in international markets
- Verification of possibilities for applying selected management methods in Central and Eastern European (CEE) firms

doc. JUDr. Petr Mrkývka, Ph.D., dept. 119, petr.mrkvyka@vsb.cz

- Determination and diversification of public financial activity - impacts on legal regulation

prof. Bogdan Oancea, Ph.D., bogdan.oancea@faa.unibuc.ro

- Predictive analytics models used in marketing

- Customer segmentation and predictive modeling

prof. JUDr. Naděžda Rozehnalová, CSc., dept. 119, nadezda.rozehnalova@vsb.cz

- European Union – legal aspects of external trade regulations

doc. Ing. Vojtěch Spáčil, CSc., dept. 116, vojtech.spacil@vsb.cz

- The antecedents of customer citizenship behaviour
- Intergenerational differences in consumer behaviour

doc. Ing. Martin Svoboda, Ph.D., martin.svoboda@econ.muni.cz

- Structured financial products
- Investor behavior from the perspective of behavioral finance

prof. Mehdi Toloo, Ph.D., dept. 152, mehdi.toloo@vsb.cz

- Robust data envelopment analysis
- Inverse data envelopment analysis
- Data selection in data envelopment analysis
- Discriminant analysis and data envelopment analysis
- Data envelopment analysis and big data
- Data envelopment analysis under uncertainty
- Machine learning and data envelopment analysis

doc. Ing. Šárka Velčovská, Ph.D., dept. 116, sarka.velcovska@vsb.cz

- Consumer typology in the B2C market

doc. Ing. Iveta Vrabková, Ph.D., dept. 153, iveta.vrabkova@vsb.cz

- Impact of IT implementation on the efficiency of social service/health service organizations
- Measuring the performance of the circular economy at the local level
- Socio-economic factors of technical efficiency of hospitals/outpatient clinics

doc. Mgr. Ing. František Zapletal, Ph.D., dept. 157, frantisek.zapletal@vsb.cz

- Application of optimization and multi-criteria decision making methods at companies
- Efficiency at companies under risk and uncertainty
- Modelling the impacts of EU environmental policy on european companies

prof. Dr. Ing. Zdeněk Zmeškal, dept. 154, zdenek.zmeskal@vsb.cz

- Application of the multi-attribute decomposition decision-making methods in management and business administration
- Game theory application in a companies decision-making
- Dynamical models in company management under risk, flexibility and interactivity
- Real option and real game option valuation and investment models
- Application of fuzzy-stochastic models in management and business administration
- Application of the ESG (economy, social, government) approaches and methods in the decision-making of companies and institutions
- Analysis of company and sector financial performance
- Forecasting company and sector performance
- Game theory application in investment and valuation

Thesis themes

Academic Year 2024/2025

Study Programme: Finance

Study program guarantor: prof. Ing. Tomáš Tichý, Ph.D.

doc. Ing. Miroslav Čulík, Ph.D., dept. 154, +420 597 322 471, miroslav.culik@vsb.cz

- Advanced applications of real options in financial decision-making of companies

prof. Dr. Ing. Dana Dluhošová, dept. 154, +420 597 322 361, dana.dluhosova@vsb.cz

- Application of value-based measurements in performance analysis of companies and comparison with sectors

doc. RNDr. Ing. Miloš Kopa, Ph.D., dept. 154, +420 597 322 015, milos.kopa@vsb.cz

- Advanced dynamic portfolio optimization models with stochastic dominance constraints
- Investor's preference modelling with stochastic dominance

doc. Ing. Michal Krajňák, Ph.D., MBA, LL.M, dept. 117, +420 597 322 222, michal.krajnak@vsb.cz

- Impact of tax legislation changes on financial decision making of business entity
- Influence of tax burden on location of permanent establishment of business entity
- Macroeconomic context of parameter changes in selected tax institute

doc. Ing. Aleš Kresta, Ph.D., dept. 154, +420 597 322 173, ales.kresta@vsb.cz

- Beyond random walks: Profitable prediction models in financial markets
- Forecasting of firm specific variables using hybrid models
- Financial time series modelling and prediction
- Risk modelling and measurement: Advanced techniques and applications
- Advanced techniques for portfolio optimization problems
- Behavioral biases in financial decision-makingDevelopment of advanced risk measurement methods

doc. Ing. Aleš Melecký, Ph.D., dept. 114, +420 597 322 153, ales.melecky@vsb.cz

- Influence of spatial differences on property prices
- Determinants of housing prices in Asian countries
- Behavioral biases in investor behavior
- Financial stability and macroprudential policy
- Impact of sentiment/confidence on the financial markets

Dr. Sergio Ortobelli, dept. 154, +420 597 322 015, sergio.ortobelli@vsb.cz

- Credit risk management of large portfolios
- Optimization models with applications at financial markets

doc. Ing. Petr Sedá, Ph.D., dept. 151, petr.seda@vsb.cz

- Advanced models of financial markets volatility

- Predictability of asset returns in the context of the efficient market hypothesis and adaptive market hypothesis
- Integration of financial markets in the context of global shocks

prof. Ing. Tomáš Tichý, Ph.D., dept. 154, +420 597 322 401, tomas.tichy@vsb.cz

- Analysis of Corporate Risk Management
- Analysis of Selected Banking Risks
- Estimation and Management of Selected Risks in Insurance
- Optimization Techniques in Corporate Finance
- Modeling and Analysis of Interaction between Financial Markets and Real Sector
- Analysis of Systemic Risks using Market Based Measures

Doctoral Thesis Topics

Academic Year 2024/2025

Study programme: Systems Engineering and Informatics

Study program guarantor: prof. Ing. Jana Hančlová, CSc.

doc. Ing. Václav Friedrich, Ph.D., dept. 151, +420 597 322 503, vaclav.friedrich@vsb.cz

- Statistical Analysis of Multidimensional Data, Multidimensional Models of Economic and Social Indicators
- Computational Modeling of Systems using Statistical, Numerical and Logical Methods (cs, en)

prof. Ing. Jana Hančlová, CSc., dept. 157, +420 597 322 285, jana.hanclova@vsb.cz

- Econometric modelling of changes in energy prices for households or selected sectors.
- Modelling and optimization of energy consumption and emission reduction

doc. Dr. Ing. Miroslav Hudec, dept. 157, +420 597 322 318, miroslav.hudec@vsb.cz

- Modelling asymmetry in evaluating alternatives and conditions by computational intelligence in economic processes
- Mining and interpreting relevant linguistic summaries from multidimensional and heterogeneous environmental data

prof. Ing. Dušan Marček, CSc., dept. 155, +420 597 322 378, dusan.marcek@vsb.cz

- Statistical and Computational Intelligence models to Predict Chaotic High-frequency Financial Data
- Creating OLAP systems for analysis and forecasting of econometric models
- Convolutional neural networks in the prediction of economic time series
- Research of methods, tools and algorithms of OLAP technology in the field of Business Intelligence of enterprises
- ITIL – Service improvement using Convolutional Neural Networks

prof. RNDr. Václav Snášel, CSc., rector, +420 597 325 279, vaclav.snasel@vsb.cz

- Multiple-criteria decision analysis

prof. Mehdi Toloo, Ph.D., mehdi.toloo@vsb.cz

- Performance Evaluation under Uncertainty
- Risk Management & Data Envelopment Analysis

doc. Mgr. Ing. František Zapletal, Ph.D., dept. 157, +420 597 322 255, frantisek.zapletal@vsb.cz

- Stochastic and fuzzy optimization of economic processes
- Application of multi-criteria decision making methods under risk and uncertainty in economics and IT
- Impacts of emissions trading on competitiveness of EU companies
- Supplier portfolio optimization under uncertainty
- Dynamic maturity model of a company

- Benchmarking of companies using multi-criteria decision making methods with dependencies among criteria in multi-period environment

prof. Dr. Ing. Zdeněk Zmeškal, dept. 154, +420 596 992 129, zdenek.zmeskal@vsb.cz

- Application of fuzzy-stochastic models (portfolio theory, derivatives valuation, dynamic programming)
- Application of the multi-attribute decomposition decision-making methods
- Application of the advanced decision-making models under risk (options), risk and flexibility (real options), risk, flexibility and interaction (real game option)