

STUDY SCHEDULE

# ECONOMICS AND FINANCE

MASTER OF SCIENCE



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Faculty  
**Society and Economics**

Kleve, October 16, 2013

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## RECOMMENDED STUDY PLAN

SEMESTER 1	Managerial Economics and Industrial Organisation	Investment in Emerging Technologies	Banking and Risk Theory	Econometrics	Methods in Finance	Applied Research Project										
	5 CP	5 CP	5 CP	5 CP	5 CP	5 CP										
SEMESTER 2	Applied Corporate Finance	Modelling Financial Markets	Taxes and Performance Indicators	Public Finance and Institutional Framework	Elective Subjects											
	5 CP	5 CP	5 CP	6 CP	9 CP											
SEMESTER 3	Applied Topics in Competition Policy	Master Thesis				Colloquium										
	5 CP	22 CP				3 CP										
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Economics	Finance	Business	Law	Methods												

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**M-EF\_1 MANAGERIAL ECONOMICS AND INDUSTRIAL ORGANISATION**


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<b>MODULE-NO.</b>	M-EF_1
<b>COURSES</b>	M-EF_1.1 Managerial Economics M-EF_1.2 Advanced Industrial Organisation
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Hasan Alkaş
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	1 <sup>st</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	Bachelor Level Microeconomics
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam
<b>LEARNING OUTCOMES</b>	The module aims to develop an understanding of key aspects of managerial economics and advanced industrial organisation. By the end of the module students will be able to understand the linkages between several economic theories and the managerial decision making process. They will have an understanding of the major topics in managerial economics. Students will be equipped with tools needed to make strategic decisions under certainty as well as uncertainty. They will be able to use microeconomic concepts and tools in the process of problem solving and decision making inside and outside the firm. They will be able to transfer their knowledge to unfamiliar topics. Upon completion of the module, students are able to demonstrate knowledge and understanding of key aspects of industrial organization, including the relationship between the structure of industrial and commercial markets and the conduct and performance of firms within them. Furthermore, students are able to use some of the basic tools of modern microeconomic analysis to examine aspects of the behaviour and performance of firms in industrial and commercial markets. They evaluate the results critically.

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**M-EF\_1.1 MANAGERIAL ECONOMICS**

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	2 CP
<b>CONTACT HOURS</b>	2 CH per week

<b>WORKLOAD</b>	60 h
<b>BIBLIOGRAPHY</b>	<p>Dobbs, I. (2000) <i>Managerial Economics</i>, Oxford: Oxford University Press.</p> <p>Allen, W. B., K. Weigelt, N. Doherty and E. Mansfield (2009) <i>Managerial Economics: Theory, Applications, and Cases</i>, 7<sup>th</sup> ed., New York: W. W. Norton &amp; Company.</p> <p>Milgrom, P. and J. Roberts (1992) <i>Economics, Organization and Management</i>, Englewood Cliffs, NJ: Prentice Hall.</p> <p>Viscusi, W. K., J. M. Vernon, and J.E. Harrington Jr. (2005). <i>Economics of Regulation and Antitrust</i>, 4<sup>th</sup> ed., Cambridge, MA: MIT Press.</p>
<b>CONTENT</b>	<p>Managerial Economics is concerned with the application of economic tools and concepts to managerial and administrative decision-making. The course discusses and applies microeconomic principles and tools to managerial decision problems. Emphasis will be placed on informed decision making within the firm as well as on strategic decisions towards players outside the firm. Main topics to be covered include:</p> <ul style="list-style-type: none"> <li>• Economic decision making</li> <li>• Decision making under risk and uncertainty</li> <li>• The value of information</li> <li>• Optimal pricing strategies</li> <li>• Production decisions</li> <li>• Capital budgeting and investment</li> <li>• Internal pricing and incentives</li> <li>• Efficiency and productivity analysis.</li> </ul>

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### M-EF\_1.2 ADVANCED INDUSTRIAL ORGANISATION

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	90 h
<b>BIBLIOGRAPHY</b>	<p>Main Textbooks</p> <p>Carlton, D. W., J. M. Perloff, and R. S. Porter (2010) <i>Modern Industrial Organization</i>, 5<sup>th</sup> ed., Prentice Hall.</p> <p>Waldman, D. E., and E. J. Jensen (2006) <i>Industrial Organization: Theory and Practice</i>, 3<sup>rd</sup> ed., Addison Wesley.</p> <p>Lipczynski, J., Goddard, J., and Wilson, J. (2005) <i>Industrial Organization: Competition, Strategy, Policy</i>, 2<sup>nd</sup> ed., Financial Times/ Prentice Hall.</p> <p>Additional Literature</p> <p>Belleflamme, P., Peitz, M. (2010) <i>Industrial Organization: Markets and Strategies</i>, Cambridge University Press.</p> <p>Furth, D. and J. Tuinstra (2012) <i>Advanced Industrial Organization</i>, 1<sup>st</sup> ed., Routledge.</p> <p>Cabral, L. (2000) <i>Introduction to Industrial Organization</i>, Cambridge, Massachusetts and London, England: MIT Press.</p>

	<p>Church, J. and R. Ware (2000): <i>Industrial Organization</i>, McGraw-Hill.</p> <p>Shy, O. (1996): <i>Industrial Organization: Theory and Applications</i>, Cambridge, Massachusetts and London, England: MIT Press.</p> <p>Further reading will be recommended as the course progresses.</p>
<b>CONTENT</b>	<p>Commonly, with "industry" steaming chimneys and steel furnaces are connected. This image, however, cannot be transferred to the academic field of Industrial Organization. The focus of this discipline rather lies on the analysis of competitive processes of industries which differ from the idealized textbook forms of "pure monopoly" and "perfect competition". This includes a very wide range of both "traditional" (e.g. energy, transport, telecoms) and "modern" (e.g. social networks such as Facebook) industries. The course aims to develop a profound understanding of advanced concepts of industrial organization. Upon completion of the module, students will be able to apply these advanced concepts to analyze structure, conduct and performance of real world industries. They will evaluate the results critically and recognize limitations of the different theoretical approaches. Topics covered include:</p> <ul style="list-style-type: none"> <li>• Structure – Conduct - Performance Paradigm</li> <li>• Analysis of market structure (concentration measures, market entry barriers, Lerner index etc.)</li> <li>• Non-cooperative behaviour</li> <li>• Cooperative strategies: collusion, cartelization, mergers</li> <li>• Research and development</li> <li>• Innovations – patents and patent races</li> <li>• Competition policy and regulation</li> <li>• Pricing strategies, price discrimination</li> <li>• Different types of rivalry.</li> </ul>

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## M-EF\_2 METHODS IN FINANCE

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<b>MODULE-NO.</b>	M-EF_2
<b>COURSES</b>	M-EF_2.1 Financial Mathematics M-EF_2.2 Research Methods
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Ralf Bauer
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	1 <sup>st</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	None

<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	Having successfully completed the module students will have a critical understanding and knowledge of quantitative methods in the areas of finance. They will be able to demonstrate and apply knowledge of methods and key skills relevant for conducting own research in the fields of economics and finance.

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### M-EF\_2.1 FINANCIAL MATHEMATICS

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	90 h
<b>BIBLIOGRAPHY</b>	Fries, C. (2007) <i>Mathematical Finance: Theory, Modeling, Implementation</i> Hoboken, NJ: Wiley & Sons.  Ross, S. (2011) <i>An elementary introduction to mathematical finance</i> , 3 <sup>rd</sup> ed., Cambridge Univ. Press.
<b>CONTENT</b>	During the course various models in the fields of financial mathematics are explained and discussed, including: <ul style="list-style-type: none"> <li>• Basics of probability theory</li> <li>• Normal distribution</li> <li>• Net present value and annuity</li> <li>• Bond valuation (zerobond and swap rate curve)</li> <li>• Deposit and loan calculation</li> <li>• Floating rate note and swap valuation</li> <li>• Option pricing.</li> </ul>

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### M-EF\_2.2 RESEARCH METHODS

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Seminar and accompanying Project
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	2 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	60 h
<b>BIBLIOGRAPHY</b>	Ethridge, D. E. (2004) <i>Research Methodology and Applied Economics: Organizing, Planning, and Conducting Economic Research</i> , 2 <sup>nd</sup> ed., Ames, IO: Blackwell Publishing.  Friedman, D., D. Friedman, A. Cassar, and R. Selten (2004) <i>Economics Lab: An Introduction</i>

	<p>to <i>Experimental Economics (Routledge Advances in Experimental and Computable Economics)</i>, London: Routledge Chapman &amp; Hall.</p> <p>Fakultät Gesellschaft und Ökonomie der Hochschule Rhein-Waal (2011) <i>Academic Writing Manual</i>, Emmerich, mimeo.</p>
<b>CONTENT</b>	<p>During the course the relevant steps in conducting and presenting own research projects are discussed. This includes:</p> <ul style="list-style-type: none"> <li>• Planning research activities, defining a research topic, and structuring a research proposal</li> <li>• Composing research problems, questions and objectives</li> <li>• Searching literature and writing a literature review</li> <li>• Drawing up a conceptual framework</li> <li>• Selecting appropriate qualitative and/or quantitative research methods and procedures; determining relevant theories and models to be used</li> <li>• Collecting data with the help of surveys and economic experiments</li> <li>• Improving scientific writing skills, lay-out of presentation slides, and presentation techniques.</li> </ul> <p>Working on subject topics from the fields of economics and finance, students will learn to apply the acquired knowledge and skills to their own projects.</p>

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### M-EF\_3 APPLIED RESEARCH PROJECT

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<b>MODULE-NO.</b>	M-EF_3
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Marion Halfmann
<b>TYPE</b>	Project and accompanying Lecture
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	1 <sup>st</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	None
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Assignment
<b>LEARNING OUTCOMES</b>	The students will learn to manage and design a research project under the supervision of a professor and demonstrate that they are able to organise, structure and write down the



	research results of real case project by applying empirical and methodical concepts. This includes research design and techniques of data collection as well as issues in the understanding, analysis, interpretation, and evaluation of empirical data.
<b>BIBLIOGRAPHY</b>	McGivern, Y. (2009) <i>The Practice of Market Research</i> , Pearson Education. Gray, C. and E. Larson (2003) <i>Project Management: The Managerial Process</i> , McGraw-Hill. Topic dependent.
<b>CONTENT</b>	The topic of the research project will be formulated by the relevant professor involving the students. Each student will be assessed on the basis of his visible individual effort, in case the project is designed a group work. In general students are asked to hand-in a Research Paper, approx. 25 Pages and make a Presentation in class, approx. 15 Slides and discuss the results and respond to questions.  The student will understand the nature and scope of applied research projects, adapt principles of empirical and experimental research, write and report and present conclusions to hypothetical clients. This involves the design of an appropriate questionnaire, conducting interviews, collecting data and drawing conclusions from statistical data.

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#### M-EF\_4 INVESTMENT IN EMERGING TECHNOLOGIES

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<b>MODULE-NO.</b>	M-EF_4
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Hasan Alkaş
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	1 <sup>st</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	None
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam, Oral Exam, or any combination

<p><b>LEARNING OUTCOMES</b></p>	<p>By the end of the course students will be able to understand innovation management concepts as well as theories of innovations. They will apply their knowledge on innovations and Key Enabling Technologies to problems arising in the context of innovation management related to high-tech industries. They will be able to analyse problems at the operational as well as the strategic level. They will interpret and apply innovation management tools and assess their shortcomings.</p> <p>By the end of the course students should have gained a knowledge and understanding of the key ideas and perspectives available for the study of investment, growth and development in emerging markets or technologies. They should have gained an appreciation of the importance of critical thought and be able to apply some theoretical perspectives in explaining economic behaviour. Students will be able to demonstrate rooted fundamentals in the analysis tools needed to include emerging markets as a new asset class in their portfolios. They are able to use tools and instruments to develop a model to diversify a portfolio with emerging markets assets through the various available channels.</p>
<p><b>BIBLIOGRAPHY</b></p>	<p>Fraser, A. B. (2010) <i>Fisher Investments on emerging markets</i>. Hoboken, N.J: Wiley.</p> <p>Sauvant, K., W. Maschek, and G. McAllister (2010) <i>Foreign direct investments from emerging markets: the challenges ahead</i>. New York, N.Y: Palgrave Macmillan.</p> <p>Kose, M. (2010) <i>Emerging markets resilience and growth amid global turmoil</i>. Washington, D.C: Brookings Institution Press.</p> <p>Dixit, A. K. and R. S. Pindyck (1994) <i>Investment Under Uncertainty</i>, Englewood Cliffs, NJ: Prentice Hall.</p> <p>Tidd, J., J. Bessant, and K. Pavitt (2005) <i>Managing Innovation: Integrating Technological, Market and Organizational Change</i>, Chichester: Wiley &amp; Sons</p>
<p><b>CONTENT</b></p>	<p>Strategic considerations by making investments in innovation activities include also technology forecasts and the flexibility to react on future developments. The course aims to provide students with the knowledge to understand different levels of the innovation management process as well as the interdisciplinary and multifunctional dimensions of innovations. Innovation management concepts as well as theories of innovations will be taught. Special emphasis is given to the role of Key Enabling Technologies (KETs). Main topics to be covered include:</p> <ul style="list-style-type: none"> <li>• Innovation Models and Strategies</li> <li>• Location of Innovation and Production</li> <li>• Open Source and Cooperative Innovations</li> <li>• Technological Trajectories for KETs</li> <li>• Framework and tools for analysing investments in emerging markets</li> <li>• Development of an emerging market strategy</li> <li>• Political, economic and legal risk</li> <li>• Venture Capital and investments in emerging technologies</li> </ul> <p>Students will analyse innovations at firm and industry level taking into account the financial and structural problems. They will be able to apply the taught theoretical concepts in order to assess the importance of knowledge for industrial competitiveness</p>

<b>MODULE-NO.</b>	M-EF_5
<b>COURSES</b>	M-EF_5.1 Portfolio and Risk Theory M-EF_5.2 Commercial and Investment Banking
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Ralf Bauer
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	1 <sup>st</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	None
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam
<b>LEARNING OUTCOMES</b>	<p>The first course part will enable students to understand the importance of risk, return and correlation for portfolios. They will understand how to value financial instruments based on no-arbitrage concept. Based on this knowledge different theories are presented to determine optimal portfolios depending on the respective decider. They acquire the required knowledge for later subjects of specialisations as option pricing and company valuation.</p> <p>The second course part will provide a broad understanding of the banking products and sector. Students will understand the importance of banks and their transformation parts. The main products of banks and their calculation will be deeply analysed, on single as well as on portfolio level. The course will also examine the importance of risk measurement, risk management and banking regulation also critically discussing Basel equity rules.</p>

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#### M-EF\_5.1 PORTFOLIO AND RISK THEORY

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	90 h
<b>BIBLIOGRAPHY</b>	<p>Bodie, Z.; Kane, A.; Marcus, A.: Investments, 8th ed., 2009.</p> <p>Bodie, Z.; Kane, A.; Marcus, A.: Essentials of investments, 2009.</p> <p>Sharpe, W.; Alexander, G./ Bailey, J.: Investments, 1999.</p> <p>Hull, J.: Risk Management and Financial Institutions, 3rd ed., 2012.</p>

<b>CONTENT</b>	<p>The module examines the main aspects of portfolio theory and its relevant aspects with regard to risk and return.</p> <p>The main subjects being discussed are:</p> <ul style="list-style-type: none"> <li>• Risk and return calculation</li> <li>• Asset classes</li> <li>• No arbitrage concept</li> <li>• Fund management and performance measurement</li> <li>• Minimum variance portfolio</li> <li>• General portfolio theory and separation theorem (Markowitz)</li> <li>• Single index model</li> <li>• Capital asset pricing model (CAPM)</li> <li>• Risk and return management.</li> </ul>
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### M-EF\_5.2 COMMERCIAL AND INVESTMENT BANKING

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Project
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	2 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	60 h
<b>BIBLIOGRAPHY</b>	<p>Heffernan, S. (2005) <i>Modern Banking</i>, 2<sup>nd</sup>. ed, Wiley.</p> <p>Iannotta, G.: <i>Investment Banking</i>, 2010.</p> <p>Hartmann-Wendels, Th.; Pfingsten, A.; Weber, M.: <i>Bankbetriebslehre</i>, 5th ed., 2010.</p>
<b>CONTENT</b>	<p>The module examines the main aspects of banking and the main banking products of both bank types which are analysed in risk and return on single and portfolio level.</p> <p>The main subjects being discussed are:</p> <ul style="list-style-type: none"> <li>• Basics about banks</li> <li>• Theoretical background</li> <li>• Deposits and their calculation</li> <li>• Loans and their calculation</li> <li>• Risk management</li> <li>• Bank regulation.</li> </ul>

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**M-EF\_6 ECONOMETRICS**


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<b>MODULE-NO.</b>	M-EF_6
<b>EQUIVALENT</b>	–
<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Gernot Müller
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	1 <sup>st</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	Basic Algebra, Analysis, Descriptive and Inferential Statistics
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam, Oral Exam, or any combination
<b>LEARNING OUTCOMES</b>	Upon successful completion of the course students will understand, analyze, select and use the econometric principles, concepts and methods commonly employed in economics and finance. They will be able to assess the strengths and shortcomings of the tools, and to apply them to real-life problems.
<b>BIBLIOGRAPHY</b>	Brooks, C. (2008) <i>Introductory Econometrics for Finance</i> , 2 <sup>nd</sup> ed., Cambridge: Cambridge University Press.  Greene, W. H. (2012) <i>Econometric Analysis</i> . 7 <sup>th</sup> internat. ed., Boston – London: Pearson.
<b>CONTENT</b>	The course provides students with an overview of basic and intermediate econometric concepts with a main focus on tools and techniques relevant for doing research in the fields of microeconomics, macroeconomics, and finance. Building on mathematical and statistical skills it covers topics such as simple and multiple univariate regression analysis, multivariate regression approaches, time series modelling and forecasting, concepts of volatility and correlation, switching models, panel data analysis, logit and probit models, and finally simulations.  All concepts are applied to specific examples taken from economics and finance, as for instance, the Capital Asset Pricing Model and the Arbitrage Pricing Theory. In addition, students are introduced to basic econometric software packages.

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**M-EF\_7 APPLIED CORPORATE FINANCE**


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<b>MODULE-NO.</b>	M-EF_7
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	N.N.
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	Bachelor Level Corporate Finance
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	The course Applied Corporate Finance enables students to comprehend, evaluate and apply to real world cases the most important principles of corporate finance. At the end of the course, the students will have a profound understanding of the investment and financial decisions, the impact of risk, interest rates, the cost of capital, and firm valuation.
<b>BIBLIOGRAPHY</b>	<p>Robin, J. (2011) <i>International corporate finance</i>, New York, NY: McGraw-Hill Irwin.</p> <p>Brealey, R., S. Myers, and F. Allen (2010) <i>Principles of Corporate Finance</i>, 2<sup>nd</sup> ed., McGraw-Hill.</p> <p>Berk, J., and P. DeMarzo (2010) <i>Corporate Finance</i>, 2<sup>nd</sup> ed., Prentice Hall.</p> <p>Ehrhardt, M. C., and E. F. Brigham (2010) <i>Corporate Finance</i>, 4<sup>th</sup> ed., South-Western College.</p>
<b>CONTENT</b>	<p>The course covers the three main areas of corporate finance: the investment decision, the finance decision and firm valuation. Students may independently work on case studies and apply the theoretical concepts to real world cases.</p> <p>Main topics to be covered include:</p> <ul style="list-style-type: none"> <li>• Introduction to corporate finance</li> <li>• Financial statement analysis</li> <li>• Multinational corporation, globalization, foreign exchange market</li> <li>• Investment decision rules and global cost of capital</li> <li>• Arbitrage and financial decision making</li> <li>• Time value of money</li> </ul>

	<ul style="list-style-type: none"> <li>• Fundamentals of capital budgeting</li> <li>• Capital markets and the pricing of risk</li> <li>• Optimal portfolio choice</li> <li>• Capital asset pricing model.</li> </ul>
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## M-EF\_8 TAXES AND PERFORMANCE INDICATORS

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<b>MODULE-NO.</b>	M-EF_8
<b>COURSES</b>	M-EF_8.1 Financial Statement Analysis M-EF_8.2 Tax Impact on Investment Decisions
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	N.N.
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	None
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	After the successful participation in this course students are able to use methods to evaluate tax burden. They can analyse the tax impact of financial and investment decisions. They are able to integrate tax strategy in corporate decision making. Furthermore students are able to analyse financial statement information for making investment decisions. Students are able to apply the specific methods for financial statement analysis and strategy analysis, aiming to identify key performance drivers, value creation and risks. Students are able to use the insights and numbers obtained from financial analysis as inputs to different valuation models for equity securities. Students are able to critically reflect the benefits and limits of financial statement analysis.

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**M-EF\_8.1 FINANCIAL STATEMENT ANALYSIS**

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	2 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	60 h
<b>BIBLIOGRAPHY</b>	<p>Palepu, K. G., P. M. Healy and E. Peek (2013): <i>Business Analysis and Valuation IFRS Edition, Text and Cases</i>, 3rd edition, South-Western Cengage Learning.</p> <p>Penman, S. H. (2012) <i>Financial Statement Analysis and Security Valuation</i>, 5th ed. New York: McGraw Hill.</p> <p>Damodaran, A. (2012): <i>Investment Valuation</i>, 3<sup>rd</sup> ed., Wiley.</p> <p>Lundholm, R. and R. Sloan (2013): <i>Equity Valuation and Analysis</i>, 3<sup>rd</sup> ed., New York, McGraw Hill.</p> <p>Elliott, B., and J. Elliott (2013) <i>Financial accounting and reporting</i>, 16th ed., Essex: Prentice Hall/Financial Times.</p>
<b>CONTENT</b>	<p>This course focuses on advanced tools for analysis of financial statement information and usage of this information for valuation of securities. Tools how to prepare financial statements for analysis and using these numbers as inputs to models for business valuation are presented. Based on these, models for valuation are discussed and applied. Topics to be covered include:</p> <ul style="list-style-type: none"> <li>• Review of financial statements as information source</li> <li>• Strategy analysis</li> <li>• Accounting analysis</li> <li>• Financial analysis</li> <li>• Forecasting</li> <li>• Valuation theory and concepts</li> <li>• Application of equity valuation models</li> <li>• Distress prediction.</li> </ul>

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**M-EF\_8.2 TAX IMPACT ON INVESTMENT DECISIONS**

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Practical Training
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	90 h
<b>BIBLIOGRAPHY</b>	<p>Scholes, M. <i>et al.</i> (2009) <i>Taxes and Business Strategy</i>, Upper Saddle River, NJ: Pearson/Prentice Hall.</p> <p>Mintz, J. and A. Weichenrieder (2010) <i>Indirect Side of Direct Investment</i>, Cambridge: MIT Press.</p>



	Moshe, S. (2009) <i>Timing of Income Recognition in Tax Law and the Time Value of Money</i> , London: Routledge.
<b>CONTENT</b>	<p>Main topics to be covered include:</p> <ul style="list-style-type: none"> <li>• Influence of taxes on investment decisions (investment decisions in a world without taxes, net present value after taxation, analysis of tax impact, i.e. impact on ranking on investments, importance of details of tax law, tax paradox, impact of special depreciation and investment grants, impact on useful life)</li> <li>• Influence of taxes on financial decisions (first calculation for contractual payments vs. profit distribution, calculating marginal tax rates, analysing marginal tax rates, financing by equity vs. debts)</li> <li>• Implicit Taxes, clienteles and arbitrage.</li> </ul>

## M-EF\_9 MODELLING FINANCIAL MARKETS

<b>MODULE-NO.</b>	M-EF_9
<b>COURSES</b>	M-EF_9.1 Stock Exchange and Market Simulations M-EF_9.2 Financial and Real Options
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	Prof. Dr. Jörn Sickmann
<b>CREDIT POINTS</b>	5 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5.6%
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	Bachelor Level Corporate Finance, Methods in Finance, Banking and Risk Theory
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	<p>At the end of the course students will be familiar with the methods how to value stocks. They will obtain knowledge of fundamental and technical analysis as well as of IPOs and simulation. The future of investment banking with regard to stocks will also be discussed. Some experiments, exercises and simulations will take place in experimental laboratories.</p> <p>In addition, students will acquire a profound knowledge of how derivative products work, how they are used and how they are priced. Students will be able to use real options theory to complement traditional investment decision rules.</p>

### M-EF\_9.1 STOCK EXCHANGE AND MARKET SIMULATIONS

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Practical Training
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	2 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	60 h
<b>BIBLIOGRAPHY</b>	<p>Galbraith, J.K. (1988) <i>The Great Crash: 1929</i>, Boston: Houghton Mifflin.</p> <p>Miller, R.M. and V.L. Smith (2005) <i>Experimental Economics: How We Can Build Better Financial Markets</i>, Hoboken, NJ: Wiley &amp; Sons.</p> <p>Bodie, Z.; Kane, A.; Marcus, A. (2009): <i>Investments</i>, 8th ed., McGraw Hill.</p> <p>Bodie, Z.; Kane, A.; Marcus, A. (2009): <i>Essentials of investments</i>, McGraw Hill.</p>
<b>CONTENT</b>	<p>Students learn about the stock market and its valuation. Crashes are analysed to identify elements being responsible in order to predict future crash situations.</p> <p>Main topics to be covered include:</p> <ul style="list-style-type: none"> <li>• Stock classes</li> <li>• Stock market</li> <li>• Valuation of stocks</li> <li>• Fundamentals vs. technical analysis</li> <li>• IPO</li> <li>• Crashes (1929, 1987, dot.com-bubble)</li> <li>• Future of investment banking</li> <li>• Portfolio simulation</li> </ul> <p>The relevant theoretical concepts will be presented and explained throughout the course with regard to challenges in the financial sector. Different methods to value stocks will be discussed. Simulations will be partly exercised in the Laboratory for experimental research.</p>

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#### M-EF\_9.2 FINANCIAL AND REAL OPTIONS

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	90 h
<b>BIBLIOGRAPHY</b>	<p>Hull, John C. (2011) <i>Options, Futures, and Other Derivatives, 8<sup>th</sup> Edition</i>, NJ: Prentice Hall.</p> <p>Damodaran, A. (2008) <i>The Promise and Peril of Real Options</i>, NY: Stern School of Business.</p> <p>Dixit, A. K. and R. S. Pyndick (1994) <i>Investment Under Uncertainty</i>, Englewood Cliffs, NJ: Prentice Hall.</p> <p>Trigeorgis, L. (1996) <i>Real Options - Managerial Flexibility and Strategy in Resource Allocation</i>, Cambridge, MA: MIT Press.</p>

<b>CONTENT</b>	<p>After a short revision of a broad range of derivative products, including forwards, futures, and swaps, this course will mainly focus on financial and real options theory. By the end of the course, students will have profound knowledge of how these products work, how they are used for hedging, speculation and arbitrage and also how they are priced (including binominal trees and the Black Scholes Merton Model).</p> <p>The real options approach allows the financial manager to take into account strategic considerations with regard to the mode of market entrance and the value of managerial flexibility in investment decision making. Traditional investment decision rules, like the Net Present Value (NPV) rule, need to be extended to take into account the real value of options. After providing a general introduction to real options theory the course will in depth cover the option to delay, the option to expand and the option to abandon.</p>
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### M-EF\_10 PUBLIC FINANCE AND INSTITUTIONAL FRAMEWORK

<b>MODULE-NO.</b>	M-EF_10
<b>COURSES</b>	M-EF_10.1 European Institutional Framework M-EF_10.2 Advanced Public Finance
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	Prof Dr habil. Gregor van der Beek
<b>CREDIT POINTS</b>	6 CP
<b>CONTACT HOURS</b>	6 CH per week
<b>WORKLOAD</b>	180 h
<b>SIGNIFICANCE OF MARK</b>	6.7%
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	-
<b>RECOMMENDED PREREQUISITES</b>	-
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	<p>Having successfully completed the module students will have a critical understanding and knowledge of the European and international Institutional framework.</p> <p>The course European Institutional Framework aims at developing a critical understanding of the specification of EU institutional law and more especially of the composition and competences of EU institutions and the EU decision-making process. They will have a basic legal understanding in order to justify details on frameworks.</p> <p>The course Advanced Public Finance aims to examine government expenditure and public revenue policies and to estimate their incentive effects from a normative and positive perspective.</p>

#### M-EF\_10.1 EUROPEAN INSTITUTIONAL FRAMEWORK

<b>EQUIVALENT</b>	-
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<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	2 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>WORKLOAD</b>	60 h
<b>BIBLIOGRAPHY</b>	<p>Bache, I., S. George, and S. Bulmer (2011) <i>Politics in the European Union</i>, Oxford: Oxford University Press.</p> <p>Peterson, J. and M. Shackleton, eds. (2012) <i>The Institutions of the European Union</i>, 3<sup>rd</sup> revised ed., Oxford: Oxford University Press.</p> <p>Wallace, H., Wallace, W. and Pollack, M.A. (2005) <i>Policy Making in the European Union</i>, Oxford: Oxford University Press.</p> <p>Craig, P., De Burca, G. (2008) <i>EU Law: Text, Cases and Materials</i>, 4<sup>th</sup> ed., Oxford: Oxford University Press.</p>
<b>CONTENT</b>	<p>The course will focus on the Institutional Framework. Topics to be covered:</p> <ul style="list-style-type: none"> <li>• Community Law and their possible repercussions on the institutional framework</li> <li>• Role of main Institutions within the EU Institutional Framework (e.g. European Commission, European Parliament, European Court of Justice).</li> </ul> <p>Furthermore the course will deal with analysing policies and decision making processes of main EU Institutions:</p> <ul style="list-style-type: none"> <li>• Functions and roles of EU institutions and bodies</li> <li>• Development of decision making processes within the EU</li> <li>• The role of actors such as NGOs in the EU's decision making process</li> <li>• Introduction to various policy areas (e.g. trade policy, foreign and security policy, industrial policy, monetary policy, agricultural policy, single market).</li> </ul>

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#### M-EF\_10.2 ADVANCED PUBLIC FINANCE

<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture and accompanying Exercise
<b>SIZE OF GROUP</b>	Up to 40
<b>CREDIT POINTS</b>	4 CP
<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	120 h
<b>BIBLIOGRAPHY</b>	<p>Gruber, Jonathan (2011) <i>Public Finance and Public Policy</i>, 3<sup>rd</sup> Edition, New York, NY, Worth Publishers.</p> <p>Rosen, H.S. and T. Gayer (2010) <i>Public Finance</i>, 9<sup>th</sup> international ed., New York, NY: McGraw Hill.</p> <p>Stiglitz, J.E. (2000) <i>Economics of the Public Sector</i>, New York, NY: W.W. Norton.</p> <p>Richard, T. (2002) <i>Public Finance: A Normative Theory</i>, 2<sup>nd</sup> ed., Academic Press.</p>
<b>CONTENT</b>	<p>Public finance is the economic approach to government expenditure and revenues, especially taxes and public debt. The role, rationale, objectives, and consequences of</p>

	<p>government intervention in the economy are discussed. The course provides students with a feasible and applicable framework for thinking about public policy issues. In particular the following topics are analysed at an advanced level:</p> <ul style="list-style-type: none"> <li>• Introduction to the economics of the public sector</li> <li>• Market failure and the public expenditure</li> <li>• Fiscal decision making and the public budgets</li> <li>• Tax and debt incidence</li> <li>• Design of the tax system</li> <li>• Public distribution policy</li> <li>• Fiscal policy and stabilisation</li> <li>• Public health policy</li> <li>• Fiscal federalism.</li> </ul>
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## M-EF\_11 ELECTIVE SUBJECTS

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<b>MODULE-NO.</b>	M-EF_11
<b>COURSES</b>	M-EF_11.1 Behavioural Finance M-EF_11.2 Organisational Economics M-EF_11.3 Applied Game Theory M-EF_11.4 Economic Analysis of Accounting M-EF_11.5 Innovation Management M-EF_11.6 Regulatory Economics
<b>CREDIT POINTS</b>	9 CP (out of 18 CP offered)
<b>CONTACT HOURS</b>	6 CH per Week
<b>WORKLOAD</b>	270 h
<b>SIGNIFICANCE OF MARK</b>	10.0%
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Elective Subjects
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination

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### M-EF\_11.1 BEHAVIOURAL FINANCE

<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Thomas Pitz
<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture
<b>SIZE OF GROUP</b>	Up to 20
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week

<b>OFFER</b>	Summer and Winter Term
<b>WORKLOAD</b>	90 h
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	None
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	Upon successful completion of the module, students will be able to characterize differences between rational and descriptive economic theories. At the end of the course students will be familiar with the main methods and results in the field of behavioural finance. This includes also the methodological background of behavioural and experimental economics. The students are able to design, run and analyse experiments related to behavioural finance.
<b>BIBLIOGRAPHY</b>	<p>Baddeley, M. (2013) <i>Behavioural Economics and Finance</i>, Routledge, New York.</p> <p>Forbes, W. (2009) <i>Behavioural Finance</i>, New York: Wiley.</p> <p>Kahneman, K, Tversky A. (2000) <i>Choices, Values and Frames</i>; Cambridge University Press.</p> <p>Montier, J. (2002) <i>Behavioural Finance: Insights into Irrational Minds and Markets</i>, Chichester: Wiley.</p> <p>Plous, S. (1993) <i>The Psychology of Judgment and Decision Making</i>, McGraw Hill.</p> <p>Shefrin, H. (2005) <i>Behavioural Corporate Finance</i>, McGraw Hill.</p>
<b>CONTENT</b>	<p>The course will introduce to psychological research about bounded rational behaviour in financial markets. The classical theory is based on the assumption that investors behave in a rational, predictable and an unbiased manner. The model assumes that market investors, portfolio managers, and finance economists in the aggregate correctly price stocks. In the 1970s, Kahneman and Tversky criticized based on experimental results the omnipotent rational "homo economicus" as not corresponding to actual human behaviour. Decision maker often use heuristics instead of purely (unboundedly) rational reasoning. The class introduces to the classical results of behavioural and experimental economics from psychologist as well as of economist.</p> <p>The main aspects to be covered are:</p> <ul style="list-style-type: none"> <li>• Rational choice, quasi-rational choice</li> <li>• Limits to arbitrage</li> <li>• Introduction to behavioural and experimental economics</li> <li>• Prospect theory</li> <li>• Psychology of financial markets</li> <li>• Bubbles and crashes.</li> </ul>

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#### M-EF\_11.2 ORGANISATIONAL ECONOMICS

<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Hasan Alkaş
<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture
<b>SIZE OF GROUP</b>	Up to 20
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester

<b>OFFER</b>	Summer and Winter Term
<b>WORKLOAD</b>	90 h
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	None
<b>POSSIBLE EXAMINATION</b>	Oral Exam
<b>LEARNING OUTCOMES</b>	Upon successful completion of the course students will be able to apply advanced concepts from industrial organisation and microeconomics in order to analyse various aspects from organisational economics. Graduates will be able to theoretically assess employment and promotion schemes, decision-making processes and structural issues in organisations.
<b>BIBLIOGRAPHY</b>	<p>Milgrom, P. and J. Roberts (1992) <i>Economics, Organization and Management</i>, Prentice Hall.</p> <p>Roberts, J. (2004) <i>The Modern Firm</i>, Oxford: Oxford University Press.</p> <p>Gibbons, R., and J. Roberts, eds. (2012) <i>The Handbook of Organizational Economics</i>, Princeton, NJ: Princeton University Press.</p> <p>Gibbons, R. (2005) Incentives Between Firms (and Within), <i>Management Science</i> 51 (2005): pp. 2-17.</p>
<b>CONTENT</b>	<p>The course addresses the following main topics:</p> <ul style="list-style-type: none"> <li>• Boundaries of the firm</li> <li>• Employment in organisations</li> <li>• Decision-making in organisations</li> <li>• Structures and processes in organisations</li> <li>• Transaction cost theory and organisational efficiency</li> <li>• Property rights and the theory of the firm</li> <li>• Horizontal and vertical organisational problems</li> <li>• Corporate governance and institutions of management control</li> <li>• Hidden action – LEN model</li> <li>• Methods to allocate internal resources</li> <li>• Influencing activities</li> <li>• Free-riding and team effort</li> <li>• Alternative organisations (partnerships and cooperatives).</li> </ul> <p>There will be a focus on employment and promotion schemes, implicit and explicit contracts, hiring decisions, and job design.</p>

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### M-EF\_11.3 APPLIED GAME THEORY

<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Hasan Alkaş
<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture
<b>SIZE OF GROUP</b>	Up to 20
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>WORKLOAD</b>	90 h
<b>PREREQUISITES</b>	None

<b>RECOMMENDED PREREQUISITES</b>	None
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	By the end of the course students will be familiar with the methods to analyse economic situations and to understand the linkages between individual decision making and multi-person interactions. They will be able to apply and assess the taught game theoretical concepts in order to make decisions and develop strategies.
<b>BIBLIOGRAPHY</b>	Binmore, K. (2007) <i>Playing for Real: A Text on Game Theory</i> , Oxford: Oxford University Press.  Dixit, A., S. Skeath and D. Reiley (2009) <i>Games of Strategy</i> , 3 <sup>rd</sup> ed., Norton.  Axelrod, R. (2006) <i>The Evolution of Cooperation</i> , Revised ed., Perseus Books Group.
<b>CONTENT</b>	The interdependence of individual decisions will be analysed in a game theoretical framework. Relevant concepts and methods to solve especially non-cooperative games will be discussed and applied to practical economic and business situations. Main topics to be covered include: <ul style="list-style-type: none"> <li>• Types and structure of Games</li> <li>• Strategies and various types of equilibria</li> <li>• Sequential and simultaneous games</li> <li>• Applications: e.g. raising rivals' cost, infrastructure sharing, bidding and auctions.</li> </ul> Relevant intermediate and advanced level microeconomic concepts will be presented and explained throughout the course. The theory of individual decision making with particular reference to situations with asymmetrical information and risk will be analysed and applied.

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#### M-EF\_11.4 ECONOMIC ANALYSIS OF ACCOUNTING

<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Philipp Schorn
<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture
<b>SIZE OF GROUP</b>	Up to 20
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>WORKLOAD</b>	90 h
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	Prior knowledge of financial accounting, corporate finance and research methods
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	This course is intended to provide an introduction to accounting theory and provides in-depth treatment of contemporary issues and problems in the field of financial accounting and standard-setting. Students learn how financial accounting adds to the functioning of capital markets and why there is a need for regulation of financial accounting. By applying tools like agency theory, game theory and regression analysis financial accounting rules are critically evaluated and the need for regulation as well as the impact of current regulation is discussed. This provides students with a toolbox to understand current trends and problems in accounting. By the end of the course students are able to grasp the impact of financial



	accounting on real economic decisions.
<b>BIBLIOGRAPHY</b>	<p>Scott, W. R. (2012) <i>Financial accounting theory</i>, 6<sup>th</sup> ed., Toronto, Pearson Canada Inc.</p> <p>Wolk, H., J. Dodd and J. Rozycki (2012): <i>Accounting Theory, Conceptual Issues in a Political and Economic Environment</i>, 8<sup>th</sup> edition, Sage.</p> <p>Deegan, C. and J. Unerman (2011): <i>Financial Accounting Theory: European Edition</i>, 2<sup>nd</sup> edition, McGraw-Hill Irwin.</p> <p>Christensen, J. and J. Demski (2003): <i>Accounting Theory, An Information Content Perspective</i>, McGraw-Hill Irwin.</p> <p>Ronen, J. and V. Yaari (2008): <i>Earnings Management, Emerging Insights in Theory, Practice, and Research</i>, Springer.</p>
<b>CONTENT</b>	<p>In this course fundamental concepts and problems of financial accounting are analysed drawing on economic theory. Practical consequences and recommendations for accounting regulation are derived. Topics to be discussed include:</p> <ul style="list-style-type: none"> <li>• Present value and future value concepts and their application to financial accounting and reporting</li> <li>• Concept of decision usefulness of financial accounting and the problem of comparing different accounting standards</li> <li>• Efficient securities market theory and its implications for financial reporting</li> <li>• Application of information approach and measurement approach to decision usefulness of financial reporting</li> <li>• Management's interest in financial reporting and concerns about disclosure, accounting policy choice, and risk reporting (positive accounting theory)</li> <li>• Empirical patterns of earnings management and possible motivations of managers to engage in earnings management</li> <li>• Economic analysis of the need for regulation of financial accounting, i.e. disclosure requirements and possible consequences of regulation.</li> <li>• Political analysis of regulation of financial accounting.</li> <li>• The role of auditors and current trend in regulation of the auditing profession.</li> </ul>

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#### M-EF\_11.5 INNOVATION MANAGEMENT

<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Hasan Alkaş
<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture
<b>SIZE OF GROUP</b>	Up to 20
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>WORKLOAD</b>	90 h
<b>PREREQUISITES</b>	None

<b>RECOMMENDED PREREQUISITES</b>	None
<b>POSSIBLE EXAMINATION</b>	Oral Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	The course aims to provide students with the knowledge to understand different levels of the innovation management process as well as the interdisciplinary and multifunctional dimensions of innovations. Innovation management concepts as well as theories of innovations will be taught. By the end of the course students will be able to understand innovation management concepts as well as theories of innovations. They will apply their knowledge to problems arising in the context of innovation management. They will be able to analyse problems at the operational as well as the strategic level. They will apply innovation management tools and assess their shortcomings.
<b>BIBLIOGRAPHY</b>	Tidd, J., J. Bessant, and K. Pavitt (2005) <i>Managing Innovation: Integrating Technological, Market and Organizational Change</i> , Chichester: Wiley & Sons.
<b>CONTENT</b>	<p>The following topics will be assessed and appropriate concepts and methods for their analysis will be selected and applied:</p> <ul style="list-style-type: none"> <li>• Innovation Management and Technical Change</li> <li>• Innovation Skills</li> <li>• Strategic Learning for Innovation</li> <li>• Grand Challenges and Innovations</li> <li>• Innovations as a Management Process</li> <li>• Innovation Strategies</li> <li>• Innovation Metrics</li> <li>• Open Source and Cooperative Innovations</li> <li>• Innovation and Production</li> <li>• Competitiveness of Nations and Ecosystems</li> <li>• Technological Trajectories</li> <li>• Innovation Management Performance</li> </ul>

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#### M-EF\_11.6 REGULATORY ECONOMICS

<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Hasan Alkaş
<b>EQUIVALENT</b>	-
<b>TYPE</b>	Lecture
<b>SIZE OF GROUP</b>	Up to 20
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	2 CH per week
<b>STUDY SEMESTER</b>	2 <sup>nd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>WORKLOAD</b>	90 h
<b>PREREQUISITES</b>	None
<b>RECOMMENDED PREREQUISITES</b>	None
<b>POSSIBLE EXAMINATION</b>	Written Exam
<b>LEARNING OUTCOMES</b>	This course aims to contribute to students' enhanced understanding of the ways in which governments and public authorities intervene in regulated markets. They will be able to

	<p>assess regulatory measures and remedies and their impact on the sectors. They will apply concepts from competition and regulation theory, notably methods associated with regulatory cases at EU level.</p>
<b>BIBLIOGRAPHY</b>	<p>Laffont, J. and J. Tirole (1993) <i>A Theory of Incentives in Procurement and Regulation</i>.</p> <p>Viscusi, W. K., J. M. Vernon, and J.E. Harrington Jr. (2005) <i>Economics of Regulation and Antitrust</i>, 4<sup>th</sup> ed., Cambridge, MA: MIT Press.</p> <p>Motta, M. (2004) <i>Competition Policy: Theory and Practice</i>, New York, NY: Cambridge University Press.</p> <p>Brandenburger, A.M. and B. J. Nalebuff (1998) <i>Co-Opetition</i>, New York, NY: Currency Doubleday.</p>
<b>CONTENT</b>	<p>The course focuses on the principles of ex ante and ex post regulation especially in network industries and evaluates the relationship between supranational and national independent regulatory authorities on the one hand, and ministries on the other hand.</p> <p>The course intends to give students a profound understanding of the various choices available to policy makers and national supervisory authorities in relation to the design and structure of national and supranational regulatory institutions and frameworks. The course will provide a critical view on current regulatory developments with the aim to identify the most appropriate regulatory policies.</p> <p>The students will analyse and discuss practical competition and regulation cases under the supervision of the professor and demonstrate that they are able to structure, analyse and apply their knowledge to real cases from network based industries.</p> <p>The following topics will be assessed and appropriate concepts and methods for their analysis will be selected and applied:</p> <ul style="list-style-type: none"> <li>• Introduction to the theory of regulation</li> <li>• Institutional setting of regulation in the EU</li> <li>• Liberalisation and Market Regulation</li> <li>• Market entry strategies and Authorisation</li> <li>• Network effects</li> <li>• Anticompetitive strategies of incumbents</li> <li>• Market Analysis and the three criteria test</li> <li>• Asymmetric Wholesale obligations</li> <li>• Symmetric Retail obligations</li> <li>• Price Regulation.</li> </ul>

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## M-EF\_12 APPLIED TOPICS IN COMPETITION POLICY

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<b>MODULE-NO.</b>	M-EF_12
<b>EQUIVALENT</b>	-
<b>RESPONSIBLE PROFESSOR</b>	Prof Dr Jörn Sickmann
<b>TYPE</b>	Lecture and accompanying Project
<b>SIZE OF GROUP</b>	Up to 20
<b>CREDIT POINTS</b>	5 CP

<b>CONTACT HOURS</b>	4 CH per week
<b>WORKLOAD</b>	150 h
<b>SIGNIFICANCE OF MARK</b>	5 of 90 CP
<b>STUDY SEMESTER</b>	3 <sup>rd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	Prior knowledge in Microeconomics and Industrial Organisation
<b>RECOMMENDED PREREQUISITES</b>	None
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Written Exam, Assignment, or any combination
<b>LEARNING OUTCOMES</b>	<p>The students will independently analyse and discuss together in class real world competition policy cases under the supervision of a professor. While the main focus will lie on cases of the European Commission, cases from other competition authorities may also be included. The students will demonstrate that they are able to apply the theoretical concepts studied so far to real world competition cases. They will also be confronted with limitations of the theory. They will learn new concepts in competition policy theory and apply the relevant techniques and tools to mergers, state aids and antitrust cases. As part of this class will take place in the laboratory for experimental economics, students will also get familiarized with techniques of experimental economics.</p>
<b>BIBLIOGRAPHY</b>	<p>Motta, M. (2009) <i>Competition Policy: Theory and Practice</i>, 12<sup>th</sup> ed., Cambridge: Cambridge University Press.</p> <p>Viscusi, K.W., J. E. Harrington, and J. M. Vernon (2005) <i>Economics of Regulation and Antitrust</i>, 4<sup>th</sup> ed., Cambridge, MA: MIT Press.</p> <p>Sherman, R. (2008) <i>Market Regulation</i>, Prentice Hall: Pearson.</p> <p>Fakultät Gesellschaft und Ökonomie der Hochschule Rhein-Waal (2011) <i>Academic Writing Manual</i>, mimeo.</p> <p>Ethridge, D. E. (2004) <i>Research Methodology and Applied Economics: Organizing, Planning, and Conducting Economic Research</i>, 2<sup>nd</sup> ed., Ames, IO: Blackwell Publishing.</p> <p>Topic dependent.</p>
<b>CONTENT</b>	The topics of the seminar will be formulated by the relevant professor or by the students in collaboration with the professor taking into account current competition policy cases related especially to network economics and finance.

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## M-EF\_13 MASTER THESIS

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<b>MODULE-NO.</b>	M-EF_13
<b>RESPONSIBLE PROFESSOR</b>	Supervisor
<b>TYPE</b>	Thesis

<b>CREDIT POINTS</b>	22 CP
<b>WORKLOAD</b>	660 h
<b>SIGNIFICANCE OF MARK</b>	24.4%
<b>STUDY SEMESTER</b>	3 <sup>rd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	50 CP
<b>RECOMMENDED PREREQUISITES</b>	None
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Thesis
<b>LEARNING OUTCOMES</b>	<p>The purpose of the master thesis is to demonstrate profound knowledge in the fields of Economics and Finance. Students will furthermore proof their ability to analyse a given task independently using scientific methods. The tasks of the student include among others:</p> <ul style="list-style-type: none"> <li>• Defining a research topic, formulating research questions</li> <li>• Structuring and planning of their work</li> <li>• Critical review of existing literature</li> <li>• Drawing up a conceptual framework</li> <li>• Selection of appropriate qualitative and/or quantitative research methods and procedures; determination of relevant theories and models to be used, justification of the scientific methods used and criticism on existing approaches.</li> <li>• Synthesis of different theories learned in the Master program.</li> </ul> <p>Students are furthermore able to proof their ability to:</p> <ul style="list-style-type: none"> <li>• Work independently</li> <li>• Express themselves i. p. in a scientific context</li> <li>• Be critical citizens who analyse and contribute towards solving economic and social challenges.</li> </ul>
<b>BIBLIOGRAPHY</b>	<p>Fakultät Gesellschaft und Ökonomie der Hochschule Rhein-Waal (2011) <i>Academic Writing Manual</i>, mimeo.</p> <p>Ethridge, D. E. (2004) <i>Research Methodology and Applied Economics: Organizing, Planning, and Conducting Economic Research</i>, 2<sup>nd</sup> ed., Ames, IO: Blackwell Publishing.</p> <p>Friedman, D., D. Friedman, A. Cassar, and R. Selten (2004) <i>Economics Lab: An Introduction to Experimental Economics (Routledge Advances in Experimental and Computable Economics)</i>, London: Routledge Chapman &amp; Hall.</p> <p>Topic dependent.</p>
<b>CONTENT</b>	<p>Students are working on applied or theoretical research topics. The topics will be specified by the responsible professor, respectively Supervisor, together with the student. The research may take the form of an internal master thesis or of an external master thesis at a company or another organisation.</p>

**M-EF\_14 COLLOQUIUM**

<b>MODULE-NO.</b>	M-EF_14
<b>RESPONSIBLE PROFESSOR</b>	Supervisor
<b>TYPE</b>	Colloquium
<b>CREDIT POINTS</b>	3 CP
<b>CONTACT HOURS</b>	8 CH
<b>WORKLOAD</b>	90 h
<b>SIGNIFICANCE OF MARK</b>	3.3%
<b>STUDY SEMESTER</b>	3 <sup>rd</sup> Semester
<b>OFFER</b>	Summer and Winter Term
<b>LANGUAGE</b>	English
<b>CLASSIFICATION</b>	Required Course
<b>PREREQUISITES</b>	87 CP
<b>RECOMMENDED PREREQUISITES</b>	None
<b>REQUIREMENTS FOR THE AWARDING OF CREDIT POINTS</b>	Examination
<b>POSSIBLE EXAMINATION</b>	Oral Exam
<b>LEARNING OUTCOMES</b>	Students will be able to demonstrate profound knowledge in the fields of Economics and Finance. They will present the main results of their academic work appropriately (e.g. poster and power point presentations) and will be able to answer topic related questions.
<b>BIBLIOGRAPHY</b>	Fakultät Gesellschaft und Ökonomie der Hochschule Rhein-Waal (2011) <i>Academic Writing Manual</i> , mimeo.  Topic dependent.
<b>CONTENT</b>	The Master Thesis is being presented and discussed.