



Economics

M.Sc.

Module Handbook

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General Information about the structure of this module handbook

This handbook provides outlines of the modules offered for the Master's Programme in Economics. Aside from the Master's thesis, the modules are:

- courses comprising lectures and tutorials from the current and the previous semester
- courses comprising lectures from the current and the previous semester
- seminars offered in the current semester

The modules are grouped under the subject area to which they belong:

Econometrics and Applied Economics
International Financial Economics
Macroeconomics and International Economics
Microeconomics and Decision Making
Public Economics.

Each module outline gives the following information:

<u>Module title</u>	
Study Programme	Specifies the applicability of the module
Credits	Each module has a credit value based on the student's workload required to successfully complete the module, in accordance with the European Credit Transfer and Accumulation System (ECTS). To complete the Master's Programme, 120 credits in total are required and 30 credits per semester should be accumulated. Track A students, aside from the Master's thesis (20 credits), need to obtain 100 credits in taught modules (courses and seminars). Track B and C students, aside from Master's thesis (30 credits), need to obtain 90 credits in taught modules (courses and seminars).
Duration	Specifies the duration of the module (in general 1 semester).
Module contribution to final grade	Explains the weighting of the module's grade within the programme and how much it effects the overall grade.
Learning Outcomes	Describes what students should be able to do on completing the module.
Teaching Content	Describes the topics covered in the module.
Lecturer	Chair responsible for the module.
Teaching Methods/ Hours per Week	Type of module (course comprising lectures, with or without tutorials, or a seminar) and its hours of tuition per week.
Work Load	Indicates the time students typically need to spend to successfully complete the module.
Examination Form	Specifies from which kind of assessments the module grade is obtained.
Prerequisites	Indicates whether specific prior knowledge would be beneficial for completing the module.

Language	Modules of the Master's Programme are taught in English.
Time slot and Frequency	(The semester in which the module is taught (Winter Term, Summer Term or both).
Last offered	Semester in which the module has been offered the last time.
Recommended Semester	Specifies in which semester it is recommended to take the module.
Compulsory/Optional	Informs whether the module must be taken to complete the Master's Programme. This applies, for instance, to the compulsory modules in "Quantitative Economics". Track A or B students, majoring in one of the subject areas, must take two specified compulsory modules, two optional modules and one seminar from the selected subject area.

Qualification Goals

M.Sc. Economics

I. Competences

A) Subject-specific competences

A1) Broadening of knowledge

In the three core lectures on „Quantitative Economics“ taught in the first semester, the students acquire a deep understanding of modern methods and topics from the three pillars of economics: microeconomics, macroeconomics, and econometrics. They are able to assess the advantages and the drawbacks of different methods. Moreover, they can evaluate the positions held by members of different schools of economic thought critically.

A2) Deepening of knowledge

In the subsequent semesters, the students select special subjects, in which they deepen their skills further. In a seminar, but also in other courses where students work independently or in teams, they develop research questions and analyze these questions with the help of the tools acquired before.

B) Generic competences

The students are in a position to quickly and independently delve into new subjects. They can apply the methods acquired during the Master's program, e. g. from econometrics, to solve problems from other fields. The students are able to present their findings in English. They can enter into a critical dialogue with others about the underlying premises and the methods used to derive the findings.

II. Learning outcomes

- In written exams, students prove that they have an in-depth understanding of the core concepts in economics and that they can apply these concepts to solve simple problems in a short time.
- In tutorials, students show that their knowledge and skills enable them to also solve more complex tasks.
- In tutorials, students work successfully in teams. They present their results to other students, who discuss these results critically.
- In advanced classes, students write short essays that satisfy scientific standards and reveal a detailed knowledge in special areas.
- In seminars, students show that they can grasp the essence of scientific papers and can organize the insights distilled from the literature in a well-structured manner. They communicate these insights to their fellow students and respond adequately to critical questions from the audience. Moreover, they formulate critical questions about other students' presentations.
- The students write seminar papers on topics of their choice. For this purpose, they draw on the modern scientific literature and relate the findings in a

meaningful way. They develop own ideas for small research projects and design approaches to solving these problems.

- In the Master's thesis, students demonstrate their ability to formulate more extensive research questions and to address them with the help of modern tools from economics. They organize the time period of several months for the preparation of the thesis independently and effectively. They are successful in developing a clear and logical structure for an extensive research project. They critically assess the applied methods and premises and derive convincing conclusions.

Curriculum of the Master's Programme in Economics

	Track A: Fast Track to a PhD	ECTS	Track B: Spezialization or Track C: Generalization	ECTS
Semester 1	All 3 compulsory modules from the subject area Quantitative Economics: <ul style="list-style-type: none"> - Advanced Econometrics - Advanced Macroeconomics I - Advanced Microeconomics I 	10 10 10	All 3 compulsory modules from the subject area Quantitative Economics: <ul style="list-style-type: none"> - Advanced Econometrics - Advanced Macroeconomics I - Advanced Microeconomics I <p>On application one compulsory module can be taken in the 3rd semester</p>	10 10 10
		30		30
Semester 2	Modules to the value of 30 ECTS, comprising courses totalling 24 ECTS and 1 seminar à 6 ECTS, from the following optional subject areas: <ul style="list-style-type: none"> - Econometrics and Applied Economics - International Financial Economics - Macroeconomics and International Economics - Microeconomics and Decision Making - Public Economics <p>Students wishing to major in a subject area must take the 2 compulsory modules, 2 optional modules and 1 seminar from the selected subject</p>		Each semester modules to the value of 30 ECTS, comprising courses totalling 24 ECTS and 1 seminar à 6 ECTS from the following optional subject areas: <ul style="list-style-type: none"> - Econometrics and Applied Economics - International Financial Economics - Macroeconomics and International Economics - Microeconomics and Decision Making - Public Economics <p>Track B students majoring in a subject area must take the 2 compulsory modules, 2 optional modules and 1 seminar from the selected subject area.</p>	
		30		
Semester 3	3 modules from the Doctoral Programme in Quantitative Economics and Finance à 10 ECTS, including 2 of the following modules: <ul style="list-style-type: none"> - Topics in Advanced Econometrics - Topics in Advanced Microeconomics - Topics in Advanced Macroeconomics 			
		30		60
Semester 4	1 module from the Doctoral Programme Master's Thesis (3 month) If majoring in a subject area, the Master's thesis must be from the selected subject area.	10 20	Master's Thesis (4 month) For Track B students majoring in a subject area the Master's thesis must be from the selected subject area.	
		30		30
Total		120		120

Subject Areas

Econometrics and Applied Economics

The overarching goal of this subject area is to make students experts in analyzing and understanding complex economic issues on the basis of real world data. To achieve this objective, students are trained in the functioning and use of advanced econometric methods for the analysis of economic and financial data. This involves training in the statistical analyses of estimation and inference for models relevant to microeconometrics, macroeconometrics and financial econometrics, as well as making students aware of the opportunities and limitations in applying these tools to real world data. The modules in applied economics center around empirical research in labour economics, public economics and financial economics using these econometric methods and emphasize the specific aspects of empirical research in these fields. Students majoring in this subject area will be well prepared to undertake their own empirical research, either for their PhD or for empirical investigations of the highest academic standards in non-university establishments, such as empirical research institutes, the consulting business, international institutions, ministries and NGOs, etc.

International Financial Economics

The purpose of this subject area is to examine key issues in international financial economics, focusing on theoretical, institutional, policy, and empirical aspects. In risk management, an understanding of the tools for analyzing and managing risks is provided. Aside from the theoretical analysis of static and dynamic models of risk management, different approaches for managing interest rate risks are presented at the applied level. A further main component of this subject area is portfolio management. Aside from basic concepts, new concepts are introduced, including minimal versus maximal market rationality, inferring market consensus probabilities from observed prices, equilibrium sharing rules, and behavioural bias in human decision making. Optional modules concentrate on financial econometrics, managerial accounting, finance, bank management and international monetary economics.

Macroeconomics and International Economics

The objective of this subject area is to give students a comprehensive overview of macroeconomic modelling and its quantitative applications. At the center are dynamic stochastic general equilibrium models, which are applied to the study of traditional macroeconomic issues, such as economic growth, business cycles, consumption and asset prices, employment and unemployment, money and inflation, and international macroeconomics. Starting from the benchmark neoclassical macroeconomic model, successive limiting assumptions are cancelled and extensions to several issues, such as heterogeneity, market incompleteness and market frictions, are incorporated. The modelling of exchange rates and their policy implications are of central importance in the area of international monetary economics. The compulsory modules for majoring in this subject area include advanced macroeconomics and international monetary economics. Optional modules cover economic growth and development, international macroeconomics, the labour market and the business cycle and topics in macroeconomics.

Microeconomics and Decision Making

The aim of this subject area is to familiarize students with the study of economic behavior deriving from individual behavior. It is based on models of human decision making. These not only include the standard model assuming rationality and selfishness, but also models of time inconsistent behavior, non-standard models of risk preferences or models of social preferences. In order to understand real world phenomena, such as bubbles in financial

markets or involuntary unemployment, the implications of these models are analytically investigated. Furthermore, empirical, in particular, experimental studies allow for the testing and enhancing of the models. Students learn the major models in the field, as well as the theoretical, empirical and experimental tools to apply, analyze and test the models. Students majoring in this subject area will become experts in human economic decision making from a theoretical, as well as from an empirical point of view. This knowledge can be used, for instance, by companies in general and business consultancies in particular. Furthermore, the methodology learned also provides a good basis for graduates to undertake their own research in an academic career.

Public Economics

The goal of this subject area is to make students acquainted with the advanced economic analyses of public sector activities. The scope of topics in the compulsory modules comprises methods of positive and normative public economics. Normative public economics deals with questions of optimal income and commodity taxation within a general equilibrium framework. Positive public economics or political economy, in contrast, is based on the behavioural postulate that political agents are rational utility maximisers and examines the consequences of this assumption for government activities, such as the provision of public and private goods, the regulation of markets and macroeconomic stabilization policies. Optional modules concentrate on specific policy issues, e.g., taxation, education, health care.

Module List

Compulsory Modules

Module Title	Compulsory	ECTS	Semester offered	Recommended semester
Advanced Econometrics	x	10	WS	1
Advanced Macroeconomics I	x	10	WS	1
Advanced Microeconomics I	x	10	WS	1

Subject Area “Econometrics and Applied Economics”

It may vary from year to year, which optional modules are offered. The current and some previous modules (*) are listed below. Especially, the concrete contents of the seminars change regularly, as they often include current economic topics.

Module Title	Compulsory	ECTS	Semester offered	Recommended Semester
Applied Time Series Analysis	x	8	SS	2
Applied Econometrics and Machine Learning	x	8	SS	2
Financial Econometrics		8	WS	3
Advanced Time Series Analysis		10 (A), 8 (B, C)	WS	3
Statistical Learning*		6	WS	3
Probability Theory and Statistical Inference		8	SS	2
Machine Learning*		6	SS	2
Topics in Advanced Econometrics		10 (A) 8 (B, C)	WS	3
Microeconometrics*		10 (A) 8 (B, C)	SS	2
Empirical Political Economy and Development*		6	WS	3
Seminar: Applied Econometric Projects	(x)	6	WS	3
Seminar: Empirical Political Economy and Development	(x)	6	WS	3
Seminar: Empirical Public Economics	(x)	6	SS	2
Seminar: Applied Econometrics and Machine Learning	(x)	6	SS	2

Subject Area “International Financial Economics”

It may vary from year to year, which optional modules are offered. The current and some previous modules are listed below. Especially, the concrete contents of the seminars change regularly, as they often include current economic topics.

Module Titel	Compulsory	ECTS	Semester offered	Recommended Semester
Risk Management	x	8	SS	2
Portfolio Management	x	6	WS	3
Accounting Theory		6	WS	3
Financial Econometrics		8	WS	3
International Monetary Economics		8	SS	2
Bank Management		6	SS	2
Hedge Funds		6	SS	2
Data Driven Application in Finance*		6	SS	2
International Finance*		6	SS	2
Seminar: Applied Econometric Projects	(x)	6	WS	3
Seminar: Topics in Corporate Finance	(x)	6	SS	2
Seminar: Applied Risk Management	(x)	6	SS	2

Subject Area “Macroeconomics and International Economics”

It may vary from year to year, which optional modules are offered. The current and some previous modules are listed below. Especially, the concrete contents of the seminars change regularly, as they often include current economic topics.

Module Title	Compulsory	ECTS	Semester offered	Recommended Semester
Advanced Macroeconomics II	x	6	SS	2
International Monetary Economics	x	8	SS	2
Topics in Advanced Macroeconomics		10 (A), 6 (B,C)	WS	3
International Macroeconomics		8	WS	3
Labour Market Search		6	SS	2
Advanced Monetary and Fiscal Policy Analysis		6	SS	2
Dynamic Macroeconomic Models*		6	SS	2
International Finance*		6	SS	2
Computational Economics*		10 (A) 8 (B,C)	WS	3

Seminar in Macroeconomics	(x)	6	WS	3
Seminar: Topics in Macro-Finance: The Euro Crisis	(x)	6	SS	2
Seminar: Family Economics*	(x)	6	SS	2

Subject Area “Microeconomics and Decision Making”

It may vary from year to year, which optional modules are offered. The current and some previous modules are listed below. Especially, the concrete contents of the seminars change regularly, as they often include current economic topics.

Module Title	Compulsory	ECTS	Semester offered	Recommended Semester
Advanced Microeconomics II	x	6	SS	2
Behavioural Economics	x	6	WS	3
Topics in Advanced Microeconomics		10 (A), 6 (B,C)	WS	3
Political Economy I: Public Choice		4	SS	2
Compensation and Benefits		6	WS	3
Quantitative Research Methods in Economics		6	WS	3
Poverty, Inequality and Income Distribution*		10 (A) 6 (B, C)	SS	2
Seminar: Project Seminar in Behavioural Economics: The disregarded Option Value of Uncertainty*	(x)	6	WS	3
Seminar: Empirical Political Economy and Development	(x)	6	WS	3
Seminar: Experimental Economics	(x)	6	SS	2

Subject Area “Public Economics”

It may vary from year to year, which optional modules are offered. The current and some previous modules are listed below. Especially, the concrete contents of the seminars change regularly, as they often include current economic topics.

Module Title	Compulsory	ECTS	Semester offered	Recommended Semester
Public Economics	x	8	SS	2
Political Economy I: Public Choice	(x)	4	SS	2

Political Economy II: The political economy of human-capital promoting public goods	(x)	4	SS	2
Labour Economics I	(x)	8	SS	2
Automation, Globalization and Inequality	(x)	6	WS	3
Economics of Education	(x)	8/10	WS	3
Health Economics		6	WS	3
Economics of Taxation		8	SS	2
Advanced Development Economics*		6	SS	2
Empirical Political Economy and Development*		6	WS	3
Labour Economics II*	(x)	6	WS	3
Seminar: Economics of Inequality	(x)	6	WS	3
Seminar: Empirical Political Economy and Development	(x)	6	WS	3
Seminar: Empirical Public Economics	(x)	6	SS	2
Seminar: Family Economics	(x)	6	SS	2

Legend

* previous course, that is currently not offered anymore | x= compulsory course; (x) students have to take one of a given selection of modules | WS = winter semester; SS= summer semester

Compulsory Modules: “Quantitative Economics”

Advanced Econometrics	
Study Programme	M.Sc. Economics
Credits	10
Duration	1 Semester
Module contribution to final grade	8,3%
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Demonstrate a sound understanding of econometric estimation theory beyond the linear model- Demonstrate an awareness of major estimation methods and testing principles for nonlinear econometric models- Programing with Python in order to understand the applied aspects of estimation principles and to apply modern econometric estimators, which are not available in standard commercial software packages
Teaching Content	<ul style="list-style-type: none">- Asymptotic Theory- IV Estimation- ML and Pseudo-ML-Estimation- Generalized Method of Moments- Bootstrapping- Shrinkage
Lecturer	Chair of Economics and Econometrics
Teaching Methods/ Hours per Week	Lecture (3 hours), Tutorial (2 hours)
Work Load	300 hours
Examination form	Based on one mid-term exam, two take-home exams and a final exam
Prerequisites	Econometrics I (or equivalent course)
Language	English
Time slot and Frequency	Winter Term
Last offered	WS20/21
Recommended Semester	1
Compulsory/Optional	Compulsory

Advanced Macroeconomics I

Study Programme

M.Sc. Economics

Credits 10

Duration 1 Semester

Module contribution to final grade 8,3%

Learning Outcomes On completion of this module, students will be able to:

- Demonstrate an understanding of modern macroeconomics and dynamic economic analysis
- Understand techniques to solve dynamic optimization problems
- Apply these methods to the study of various macroeconomic issues, such as economic growth, business cycles. Monetary policy, consumption and asset prices

Teaching Content

- Dynamic Programming
- The neoclassical growth model
- New growth theory
- Ricardian equivalence
- Real business cycle theory
- Dynamic models of money

Lecturer Chair of International and Monetary Macroeconomics

Teaching Methods/ Hours per Week Lecture (3 hours), Tutorial (2 hours)

Work Load 300 hours

Examination form Based on homework assignments and a final exam

Prerequisites Basic knowledge of Macro- and Microeconomics, e.g. Introductory Economics, Macroeconomics I and Microeconomics I at the University of Konstanz

Language English

Time slot and Frequency Winter Term

Last offered WS20/21

Recommended Semester 1

Compulsory/Optional Compulsory

Advanced Microeconomics I

Study Programme
M.Sc. Economics

Credits 10

Duration 1 Semester

Module contribution to final grade 8,3%

Learning Outcomes This course is a rigorous introduction to microeconomic theory. After successful participation in this course, students will be familiar with the basic concepts of microeconomics like utility maximization, decisions under uncertainty, production, perfect and imperfect competition, externalities, Nash equilibrium in games of complete and incomplete information. They have discussed some important applications and will have learned the basic microeconomic methods and modelling techniques.

Teaching Content Chapter 1: Preferences, utility, demand, expected utility
Chapter 2: Production, costs, profit-maximization.
Chapter 3: Partial equilibrium, welfare
Chapter 4: Exchange economy, walrasian equilibrium
Chapter 5: Externalities, public goods
Chapter 6: Nash equilibrium, Bayesian games, extensive games

Lecturer Chair of Microeconomic Theory

**Teaching Methods/
Hours per Week** Lecture (3 hours), Tutorial (2 hours)

Work Load 300 hours

Examination form Written final exam

Prerequisites Students should be familiar with mathematical methods as covered in the preparation course "Quantitative methods". Some prior background in microeconomics on the level of Varian, "Intermediate Microeconomics", or Pindyck and Rubinfeld, "Microeconomics", is helpful. The material will be covered from scratch, but at a fast pace.

Language English

**Time slot and
Frequency** Winter Term

Last offered WS20/21

**Recommended
Semester** 1

Compulsory/Optional Compulsory

Current modules of Subject Area “Econometrics and Applied Economics”

Applied Time Series Analysis

Study Programme

M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Specify and estimate econometric models for time series data- Use these models for forecasting- Apply these methods in practice using appropriate computer programs- Understand and interpret the results from empirical research papers in time series analysis
Teaching Content	<ul style="list-style-type: none">- Introduction and Descriptive Methods- Stationary Stochastic Processes (AR, MA, ARMA)- Estimation, Specification and Validation of ARMA models- Nonstationary Processes (ARIMA, Unit Root Tests)- Forecasting- Time Series Models of Heteroskedasticity (ARCH + GARCH Processes)- Topics in Applied Time Series Modelling
Lecturer	Chair of Statistics and Econometrics
Teaching Methods/ Hours per Week	Lecture (3 hours), Tutorial (1 hour)
Work Load	240 hours
Examination form	Take-home exam and written final exam
Prerequisites	Bachelor level econometrics
Language	English
Time slot and Frequency	Summer Term
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	Compulsory for majoring in Subject Area “Econometrics and Applied Economics”, otherwise optional

Applied Econometrics and Machine Learning

Study Programme
M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Use a range of methods to analyze multiple time series data- Use and program standard econometric software to analyze time series data- Critically discuss and interpret the results of empirical time series related research papers
Teaching Content	Major topics in the course are: <ul style="list-style-type: none">- The Multiple Linear Regression Model: LS-Estimation, Tests, Forecasting, Restricted LS-Estimation- Problems of Model Specification: Autocorrelation, Heteroscedasticity, Functional Form- Introduction to Dynamic Models- Quantal Response Models- Instrumental Variables Estimation- Computer Tutorials with R
Lecturer	Chair of Economics and Econometrics
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	240 hours
Examination form	Final exam
Prerequisites	Introductory linear algebra, calculus, probability and statistics
Language	English
Time slot and Frequency	Summer Term
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	Compulsory for majoring in Subject Area "Econometrics and Applied Economics", otherwise optional

Financial Econometrics

Study Programme
M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	The main aim of the course can be summarized as follows: <ul style="list-style-type: none">- To spark interest in the field by stressing the most important empirical and practical implications of financial econometrics which can lead to a more specific research- To endow the participants with an econometric toolbox for the analysis of financial data- To equip the participants with a profound knowledge of data handling and programming skills in Python
Teaching Content	This course is designed as an introduction to empirical finance. The focus is on the analysis of financial data as well as on applications of econometric methods to portfolio management, risk management and forecasting.
Lecturer	Chair of Economics and Econometrics
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	240 hours
Examination form	take home exam and a final exam
Prerequisites	Econometrics I (or equivalent course), Basic knowledge of Time Series Analysis
Language	English
Time slot and Frequency	Winter Term
Last offered	WS20/21
Recommended Semester	3
Compulsory/Optional	Optional

Advanced Time Series Analysis

Study Programme
M.Sc. Economics

Credits 10 (Track A), 8 (Track B or C)

Duration 1 Semester

Module contribution to final grade 8,3 % (Track A), 6,6% (Track B or C) The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this module, students will be able to:

- Use a range of methods to analyse multiple time series data
- Use and program standard econometric software to analyse time series data
- Critically discuss and interpret the results of empirical time series related research papers

Teaching Content

1. Introduction and Overview
2. Stable Vector Autoregressive (VAR) Models
3. Integrated Variables and Cointegrated VAR Models
4. Structural VARs and VECMs
5. Bayesian VARs
6. Multivariate GARCH Models

Lecturer Chair of Statistics and Econometrics

Teaching Methods/ Hours per Week Lecture (3 hours), Tutorial (1 hour)

Work Load 300 hours (Track A), 240 hours (Track B or C)

Examination form Based on a final exam

Prerequisites Advanced Econometrics, Applied Time Series Analysis

Language English

Time slot and Frequency Winter Term

Last offered WS20/21

Recommended Semester 3

Compulsory/Optional Optional

Probability Theory and Statistical Inference

Study Programme

M.Sc. Economics, M.Sc. Social and Economic Data Science

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	The course covers the major topics from probability theory and statistical inference and lays the grounds for econometric theory. It conveys a proper understanding of the basic theoretical concepts and ideas needed to work in applied and theoretical econometrics.

Teaching Content	<p>The course gives an introduction to the basic mathematical foundations of probability theory and of statistical inference on a graduate level. The foundations of probability theory part of the course cover the following topics:</p> <ul style="list-style-type: none">▪ Basic of probability theory:<ul style="list-style-type: none">- Events, probability, conditional probability, independence, product spaces and completeness- Discrete and continuous random variables, probability distributions- Expectation, conditional expectation, conditional distributions- Moment generating and characteristic functions, their applications▪ Basics of asymptotic theory:<ul style="list-style-type: none">- Convergence concepts, modes of convergence- Limit theorems <p>The statistical inference part of the course covers the following topics:</p> <ul style="list-style-type: none">▪ Random sample, properties▪ Principles of data reduction, the sufficiency and the likelihood principles▪ Point estimation, finding and evaluating point estimators▪ Interval estimation, finding and evaluating interval estimators▪ Estimation theory for parametric models: regression models and least squares method
-------------------------	--

Lecturer	Chair of Economics and Econometrics
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (2 hours)
Work Load	240 hours
Examination form	Based on homework, surprise quizzes, mid-term take-home exam and a final exam

Prerequisites

Language	English
Time slot and Frequency	Summer Term
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	Optional

Topics in Advanced Econometrics

Study Programme

M.Sc. Economics, M.Sc. Social and Economic Data Science

Credits 10 (Track A); 8 (Track B or C)

Duration 1 Semester

Module contribution to final grade 8,3 % (Track A), 6,6% (Track B or C) The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this course, students will be able to:

- Demonstrate an understanding of computer intensive econometric methods that allow for the estimation of complex structures, for which conventional parametric and nonparametric procedures are difficult to apply. These models either require nonparametric or semiparametric estimation or Monte Carlo integration methods
- To program and apply these methods
- Write and resent small research papers

Teaching Content

- Nonparametric estimation
- Simulation estimators
- Bayesian estimatin
- Shrinkage estimation
- Statistical learning

Lecturer Chair of Economics and Econometrics

Teaching Methods/ Hours per Week Lecture (2 hours), Tutorial (1 hour)

Work Load 300 hours for M.Sc. Economics (Track A)
240 hours for for M.Sc. Economics (Track B or C), M.Sc. Social and Economic Data Science

Examination form Based on two presentations and a final paper

Prerequisites Advanced Econometrics

Language English

Time slot and Frequency Winter Term

Last offered WS19/20

Recommended Semester 3

Compulsory/Optional Optional

Seminar: Applied Econometric Projects

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this module, students will be able to pursue independent research based on specific economic problems.

Teaching Content In the seminar, participants prepare an empirical study using real world data, econometric techniques and software. Students should demonstrate their ability to use econometric techniques to analyze specific economic problems. Topics include projects on forecasting economic time series and projects using more structural models used for policy analysis. You will typically work with (high-dimensional) macroeconomic time series and/or financial time series data.

The work on the seminar topics typically includes reading and understanding the relevant literature, collecting and preparing appropriate data, specifying and estimating an econometric model, presenting and discussing the empirical results in class and writing a seminar paper.

To implement the seminar projects, you need to use econometric software and do some programming (typically in Matlab)

Lecturer Chair of Statistics and Econometrics

**Teaching Methods/
Hours per Week** Seminar (2 hours)

Work Load 180 hours

Examination form Based on a presentation and a seminar paper

Prerequisites Participants must have good knowledge in econometrics (similar to "Econometrics" and "Advanced Econometrics" at the UKon) and must have attended one additional course helpful for time series analysis (e.g. Advanced Time Series Analysis, Applied Time Series Analysis, Financial Econometrics or Zeitreihenanalyse (Prof. Beran)). Without this background participation is not possible. Some knowledge in using and programming econometric software (e.g. Matlab or R) is recommended.

Language English

Last offered WS20/21

Recommended Semester 3

Compulsory/Optional One seminar in Subject Area "Econometrics and Applied Economics" is compulsory for majoring in this subject area.
For other students: optional

Seminar: Empirical Political Economy and Development

Study Programme

M.Sc. Economics, M.Sc. Political Economy

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	After completing this seminar, participants should know about the state of research in these areas and should also have a good knowledge of micro-econometric methods commonly used to establish causality.

Teaching Content This seminar provides an overview of empirical research in political economy and long-run development. We will be studying factors that explain the vast differences in income levels across space and over time, with a focus on empirically establishing how and whether geography, institutions, and culture are ultimate causes of economic growth and political differences.

Lecturer Jun. Prof in Labour Economics

**Teaching Methods/
Hours per Week** Seminar (2 hours)

Work Load 180 hours

Examination form Based on a presentation and a seminar paper

Prerequisites Good knowledge in econometrics and statistics

Language English

Last offered WS20/21

Recommended Semester 3

Compulsory/Optional One seminar in Subject Area "Econometrics and Applied Economics" is compulsory for majoring in this subject area.
For other students: optional

Seminar: Empirical Public Economics

Study Programme

M.Sc. Economics, M.Sc. Political Economy

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes After completion of the course students should be able to understand the most recent microeconomic methods commonly used to evaluate economic policies. They should understand their basic identification strategies, the data requirements to implement these methods as well as their potential shortcomings. The seminar aims at providing students with the necessary skills to understand and to critically assess empirical evaluations of economic policies.

Teaching Content

- Political economy I: Preferences for redistribution
- Political economy II: Preferences for public spending
- Tax policy: Support for inheritance taxation
- Education policy I: Prole models in education
- Labour market policy I: Labour disputes
- Health policy: Smoking bans
- Labour market policy II: Labour market deregulation
- Education policy II: Testing
- Family policy II: Public child care provision
- Education policy III: Computers in classrooms

Lecturer Chair of Public Economics

**Teaching Methods/
Hours per Week** Seminar (2 hours)

Work Load 180 hours

Examination form Based on term paper, presentation, participation and a one-page summary

Prerequisites Solid background in econometrics and statistics

Language English

Last offered SS20

**Recommended
Semester** 2

Compulsory/Optional One seminar in Subject Area "Econometrics and Applied Economics" is compulsory for majoring in this subject area.
For other students: optional

Seminar: Applied Econometrics and Machine Learning

Study Programme

M.Sc. Economics, M.Sc. Political Economy

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	The goal of this seminar is to acquaint students with the necessary toolbox of machine learning techniques.
Teaching Content	<ul style="list-style-type: none">- How does the stress of the classmates effect one's own stress? An Econometric Network Analysis of Emotional Crossover during class- What personality matter to become a good student: Evidence from Machine Learning- Labor force participation and the Big Five Personality traits- Portfolio Choice by Clustering Financial Time- Asset Pricing and Machine Learning- Learning from Machines about Financial Risks: Bagging the Value-at-Risk and Expected Shortfall- Predicting Swarm Behavior with Convolutional Neural Networks
Lecturer	Chair of Economics and Econometrics
Teaching Methods/ Hours per Week	Seminar (2 hours)
Work Load	180 hours
Examination form	Based on research paper
Prerequisites	Econometrics I and Advanced Econometrics (or equivalent). Participation in the lecture Applied Econometrics is a advantage. We expect that students have a decent programming background in either MatLab, R or Python or at least willing to invest sufficient effort to learn one of these languages.
Language	English
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	One seminar in Subject Area "Econometrics and Applied Economics" is compulsory for majoring in this subject area. For other students: optional

Current modules of Subject Area “International Financial Economics”

Risk Management	
Study Programme	M.Sc. Economics
Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	The goal of the course is to enable students to describe the risk management process from the perspective of financial institutions as the process by which risk exposures are identified, measured, and controlled. This includes the concepts of Value-at-Risk, Credit Risk as well as regulatory issues such as the Basel regulations.
Teaching Content	Banks Insurance Companies and Pension Plans Funds, Trading in Financial Markets Trading in Financial Markets and Credit Crisis How traders manage their risk Interest Rate Risk, Volatility Correlations, Copulas, VaR, ESF, Historical Simulation Regulations, Liquidity Risk Credit Risk, Default probabilities
Lecturer	Chair of Finance
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	240 hours
Examination form	Based on a final exam
Prerequisites	Capital Market Theory or equivalent
Language	English
Time slot and Frequency	Summer Term
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	Compulsory for majoring in Subject Area “International Financial Economics”, otherwise optional

Portfolio Management

Study Programme

M.Sc. Economics

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Explain different financial investments and their relevance in today's economy- Apply their knowledge with respect to portfolio optimization and risk assessment- Solve complex problems relating to asset allocation problems, which they face as investors

Teaching Content The basic concepts developed in this course include: stochastic processes of returns, risk-neutral vs subjective probabilities, the stochastic discount factor, necessary and sufficient conditions for existence and uniqueness of risk-neutral probabilities, dynamic completeness, state prices, life-cycle financial planning, determinants of consumption and portfolio choice, portfolio separation and the market portfolio, complete forward vs sequential markets, practical limits to arbitrage, expected utility and risk aversion, alphas and betas, required alphas, market timing vs selectivity, Sharpe ratio, indirect utility functions, continuous rebalancing strategies, and rational expectations.

Models include: standard finance model (two-date model, many dates model, many states model), random walk model, single and multiple factor models, arbitrage pricing theory, mean-variance portfolio choice and mean-variance equilibrium expected returns, constant relative risk aversion-lognormal returns multi-period equilibrium model

Lecturer	Chair of Finance
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	180 hours
Examination form	Based on a final exam
Prerequisites	Capital Market Theory or equivalent
Language	English
Time slot and Frequency	Winter Term
Last offered	WS20/21
Recommended Semester	3
Compulsory/Optional	Compulsory for majoring in Subject Area "International Financial Economics", otherwise optional

Accounting Theory

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes After completing this course, students will have:

- Developed an understanding of the agency conflicts between managers and owners and between owners and creditors, respectively, and understand how financial reporting can mitigate these conflicts.
- Become a knowledgeable consumer of financial reporting. In particular, you know about the role of financial reporting in a capital markets context and about management's incentives regarding earnings management.
- Developed an awareness of how firms report and frame the information disclosed.
- Learned about the institutional setting of financial reporting, auditing, and corporate governance.
- Learned how "earnings quality" can be measured empirically.
- Demonstrated a deep understanding of important papers in the field of financial accounting.
- Comprehended the "state of the art" of research in the field of financial reporting and auditing and found out possibilities for "future research".

Teaching Content The Informational Role of Financial Reporting
Financial Reporting and the Capital Market
Incentive-Usefulness of Accounting Information
Earnings Management
Disclosure
Auditing
Auditor Independence

Lecturer Chair of Accounting

**Teaching Methods/
Hours per Week** Lecture (2 hours), Tutorial (1 hour)

Work Load 180 hours

Examination form Based on a presentation and a final exam

Prerequisites Basic knowledge of bookkeeping and financial reporting according to IFRS

Language English

**Time slot and
Frequency** Winter Term

Last offered WS20/21

**Recommended
Semester** 3

Compulsory/Optional Optional

Financial Econometrics

Study Programme

M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	The main aim of the course can be summarized as follows: <ul style="list-style-type: none">- To spark interest in the field by stressing the most important empirical and practical implications of financial econometrics which can lead to a more specific research- To endow the participants with an econometric toolbox for the analysis of financial data- To equip the participants with a profound knowledge of data handling and programming skills in Python
Teaching Content	This course is designed as an introduction to empirical finance. The focus is on the analysis of financial data as well as on applications of econometric methods to portfolio management, risk management and forecasting.
Lecturer	Chair of Economics and Econometrics
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	240 hours
Examination form	Based on a take home exam and a final exam
Prerequisites	Econometrics I (or equivalent course), Basic knowledge of Time Series Analysis
Language	English
Time slot and Frequency	Winter Term
Last offered	WS20/21
Recommended Semester	3
Compulsory/Optional	Optional

International Monetary Economics

Study Programme

M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to analyze and address typical questions in international monetary economics

Teaching Content	<ol style="list-style-type: none">1. Introduction2. The Intertemporal Approach to the Current Account3. Uncovered Interest Parity and Purchasing Power Parity4. The Monetary Model of Exchange Rates5. The Dornbusch Overshooting Model6. New Open Economy Macroeconomics7. Exchange Rate Regimes and Financial Crises
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Lecturer	Chair of International Economics and Political Economy
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Teaching Methods/ Hours per Week	Lecture (3 hours), Tutorial (1 hour)
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Work Load	240 hours
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Examination form	Based on home assignments and a final exam
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Prerequisites

Language	English
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Time slot and Frequency	Summer Term
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Last offered	SS20
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Recommended Semester	2
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Compulsory/Optional	Optional
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Bank Management

Study Programme
M.Sc. Economics

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Explain the history of banking and its relevance to today's economy- Apply their knowledge with respect to bank funding and risk assessment- Solve complex problems relating to fixed income securities which the banks hold
Teaching Content	The subject matter of this module is the organization and accounting in banks. This is connected to the problem of how banks control their portfolios and how they make a profit. The details of asset and liability management are explained.
Lecturer	Chair of Corporate Finance
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	180 hours
Examination form	Based on a final exam
Prerequisites	Investment and Finance
Language	English
Time slot and Frequency	Summer Term
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	Optional

Hedge Funds

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes Students should be comfortable with explaining the structure of hedge funds and how to obtain information about hedge funds. They can assess the performance of hedge funds using advanced factor model techniques. Students can assess the value added by managers and competently outline the induced incentives for the managers. They can detect manipulation and errors at hedge funds.

Teaching Content Introduction to Hedge Funds
Hedge Fund Data Sources
Performance Measurement
Factor Models
Does Alpha Exist?
Fund Flow
Incentive Contracts and Hedge Fund Management
Cheating and Manipulation
Regulation

Lecturer Chair of Finance

**Teaching Methods/
Hours per Week** Lecture (2 hours), Tutorial (1 hour)

Work Load 180 hours

Examination form Based on a final exam

Prerequisites

- Basic Econometrics, linear regression and time series modeling
- Modern Portfolio Theory and asset pricing, CAPM, basic empirical asset pricing models, factor models
- Fluency in Python

Language English

**Time slot and
Frequency** Summer Term

Last offered SS20

**Recommended
Semester** 2

Compulsory/Optional Optional

Seminar: Utility Functions and Risk Aversion

Study Programme

M.Sc. Economics, M.Sc. Mathematical Finance

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module students will have a handy tool-box for advanced finance problems

Teaching Content	Quadratic utility and mean variance Power and log utility (CRRA) Exponential utility (CARA) Kahnemann and Tversky: value function and prospect theory Empirical utility functions and the pricing kernel puzzle Ross Recovery Bounds on the market risk premium
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Lecturer	Chair of Finance
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Teaching Methods/ Hours per Week	Seminar (2 hours)
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Work Load	180 hours
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Examination form	Based on a literature review, discussion paper and a learning journal
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Prerequisites

Language	English
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Last offered	WS20/21
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Recommended Semester	3
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Compulsory/Optional	One seminar in Subject Area "International Financial Economics" is compulsory for majoring in this subject area. For other students: optional
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Seminar: Applied Econometric Projects

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this module, students will be able to pursue independent research based on specific economic problems.

Teaching Content In the seminar, participants prepare an empirical study using real world data, econometric techniques and software. Students should demonstrate their ability to use econometric techniques to analyze specific economic problems. Topics include projects on forecasting economic time series and projects using more structural models used for policy analysis. You will typically work with (high-dimensional) macroeconomic time series and/or financial time series data.

The work on the seminar topics typically includes reading and understanding the relevant literature, collecting and preparing appropriate data, specifying and estimating an econometric model, presenting and discussing the empirical results in class and writing a seminar paper.

To implement the seminar projects, you need to use econometric software and do some programming (typically in Matlab)

Lecturer Chair of Statistics and Econometrics

**Teaching Methods/
Hours per Week** Seminar (2 hours)

Work Load 180 hours

Examination form Based on a presentation and a seminar paper

Prerequisites Participants must have good knowledge in econometrics (similar to "Econometrics" and "Advanced Econometrics" at the UKon) and must have attended one additional course helpful for time series analysis (e.g. Advanced Time Series Analysis, Applied Time Series Analysis, Financial Econometrics or Zeitreihenanalyse (Prof. Beran)). Without this background participation is not possible. Some knowledge in using and programming econometric software (e.g. Matlab or R) is recommended.

Language English

Last offered WS20/21

Recommended Semester 3

Compulsory/Optional One seminar in Subject Area "International Financial Economics" is compulsory for majoring in this subject area.
For other students: optional

Seminar: Selected Topics in Corporate Finance

Study Programme

M.Sc. Economics

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	This seminar offers Master students the opportunity to work on selected topics in the field of corporate finance and to present their results in class.

Teaching Content	<ul style="list-style-type: none">- Governance and the Cost of Debt in Alternative RDD Setting- Short Termism in Corporations- The Effects of Trump's Tax Cut on Payout Policies and Investment Decisions- How much do Shareholders Value the Right to Vote? - Dual-Class Approach- How did 'Say on Pay' Affect Management Remuneration?- Does the 'Glass Cliff' Hypothesis Hold Empirically?- All-Star Analysts- Superstar CEOs and Acquisition Behavior- Status Transfer to TMT- Credit Constraints for Risky Agents- Credit Constraints for Risky Agents: Equity Markets as Solutions- The Effect of Creditor Rights on Corporate Governance- What Happens to Firms that Commit Financial Fraud? - The Case of Bankruptcy- International Stock-Market Correlations and Culture
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Lecturer	Chair of Corporate Finance
Teaching Methods/ Hours per Week	Seminar (2 hours)
Work Load	180 hours
Examination form	Based on a presentation and a term paper
Prerequisites	
Language	English
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	One seminar in Subject Area "International Financial Economics" is compulsory for majoring in this subject area. For other students: optional

Seminar: Applied Risk Management

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes Having taken the course "Risk Management", course participants shall be able to

- apply methods introduced in the course
- critically judge upon course content
- generalize course content to related problems

Teaching Content The goal of the seminar "Applied Risk Management" is to deepen risk management tools taught in introductory courses, such as Risk Management, and to investigate how these methods are applied in practice. Indicative topics are: Systemic risk; EU banking regulation; Copulas; Pension fund management in (very) low interest environments; Liquidity risk; Credit risk management; Extreme value theory; Monte Carlo Methods in applied risk management, Portfolio optimization with risk constraints, Asset management in bustling markets, Risk mitigation techniques in OTC markets: clearing and bilateral margining

Lecturer Chair of Finance

Teaching Methods/ Hours per Week Seminar (2 hours)

Work Load 180 hours

Examination form Seminar paper including its presentation, discussion of another paper and participation during the seminar

Prerequisites Previous knowledge in Risk Management is beneficial, but not required

Language English

Last offered SS20

Recommended Semester 2

Compulsory/Optional One seminar in Subject Area "International Financial Economics" is compulsory for majoring in this subject area.
For other students: optional

Current Modules of Subject Area “Macroeconomics and International Economics”

Advanced Macroeconomics II

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this module, students will be able to:

- Demonstrate an understanding of macroeconomics with heterogeneity and frictions in labour and capital markets
- Apply the modelling tools to address questions on labour market dynamics, intergenerational redistribution and on the macroeconomic effects of fiscal policy

Teaching Content The course covers advanced topics in dynamic macroeconomics. Departing from the benchmark models of complete and frictionless markets, this course emphasizes the role of heterogeneity and market imperfections. The first part develops overlapping-generation models which are useful for the analysis of social security and public debt. The second part covers market incompleteness and wealth inequality. The third part deals with search frictions in the labour market which are helpful to analyze unemployment and labour market dynamics.

Lecturer Chair of Macroeconomics

Teaching Methods/ Hours per Week Lecture (2 hours), Tutorial (1 hour)

Work Load 180 hours

Examination form Based on homework and a final exam

Prerequisites Advanced Macroeconomics I

Language English

Time slot and Frequency Summer Term

Last offered SS20

Recommended Semester 2

Compulsory/Optional Compulsory for majoring in Subject Area “Macroeconomics and International Economics”, otherwise optional

International Monetary Economics

Study Programme

M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to analyze and address typical questions in international monetary economics

Teaching Content	<ol style="list-style-type: none">8. Introduction9. The Intertemporal Approach to the Current Account10. Uncovered Interest Parity and Purchasing Power Parity11. The Monetary Model of Exchange Rates12. The Dornbusch Overshooting Model13. New Open Economy Macroeconomics14. Exchange Rate Regimes and Financial Crises
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Lecturer	Chair of International Economics and Political Economy
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Teaching Methods/ Hours per Week	Lecture (3 hours), Tutorial (1 hour)
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Work Load	240 hours
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Examination form	Based on home assignments and a final exam
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Prerequisites

Language	English
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Time slot and Frequency	Summer Term
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Last offered	SS20
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Recommended Semester	2
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Compulsory/Optional	Compulsory for majoring in Subject Area "Macroeconomics and International Economics", otherwise optional
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Topics in Advanced Macroeconomics

Study Programme

M.Sc. Economics

Credits 10 (Track A), 6 (Track B or C)

Duration 1 Semester

Module contribution to final grade 8,3 % (Track A), 5% (Track B or C) The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this module, students will be able to:

- Evaluate current research development in macroeconomics
- Identify new and challenging research questions

Teaching Content Partial Equilibrium Search Models and Critiques Application: Optimal Unemployment Insurance
Equilibrium Wage Dispersion (Part 1): On-the-job Search
Endogenous Job Creation and Job Destruction
Shimer's Critique and the Beveridge Curve
Equilibrium Wage Dispersion (Part 2): Sequential Auctions Models
Application: Minimum Wages
Application: Discrimination

Lecturer Jun. Prof. in Economics

Teaching Methods/ Hours per Week Lecture (2 hours), Tutorial (1 hour)

Work Load 180 hours

Examination form Based on participation, homework and a presentation

Prerequisites Advanced Macroeconomics I

Language English

Time slot and Frequency Winter Term

Last offered WS20/21

Recommended Semester 3

Compulsory/Optional Optional

International Macroeconomics

Study Programme

M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Analyze and address typical questions in international macroeconomics- Use stochastic dynamic equilibrium models of open economies to analyze the role of international financial markets
Teaching Content	<ul style="list-style-type: none">- International Borrowing and Lending under Uncertainty in a Two-Period Framework- International Business Cycles: A Workhorse Model- International Risk Sharing, Financial Markets and International Relative Prices- International Portfolio Diversification and the Home Bias Puzzle- International Debt and Default- Business Cycles and Default Risk
Lecturer	Chair of International Economics and Political Economy
Teaching Methods/ Hours per Week	Lecture (3 hours), Tutorial (1 hour)
Work Load	240 hours
Examination form	Based on homework, essay and a final exam
Prerequisites	Advanced Macroeconomics I
Language	English
Time slot and Frequency	Winter Term
Last offered	WS20/21
Recommended Semester	3
Compulsory/Optional	Optional

Advanced Monetary and Fiscal Policy Analysis

Study Programme

M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits

Learning Outcomes On completion of this module, students will be able to:

- Demonstrate an understanding of monetary and fiscal policy in a dynamic general equilibrium context
- Apply the modelling tools to address positive and normative questions on the macroeconomic effects of monetary and fiscal policies and their interaction with financial frictions

Teaching Content The course covers topics in the analysis of monetary and fiscal policy. Departing from the real business cycle benchmark, this course emphasizes the theoretical foundations and effects of monetary and fiscal policy in dynamic general equilibrium. Financial frictions will receive particular attention in this context. The course will also provide an introduction to solving and analyzing relevant models via Dynare.

Lecturer Chair of Macroeconomics

Teaching Methods/ Hours per Week Lecture (2 hours), Tutorial (1 hour)

Work Load 180 hours

Examination form Based on homework assignments and a final exam

Prerequisites Advanced Macroeconomics I

Language English

Time slot and Frequency Summer Term

Last offered SS20

Recommended Semester 2

Compulsory/Optional Optional

Seminar in Macroeconomics

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits

Learning Outcomes On completion of this module, students will be able to pursue independent research based on specific economic problems

Teaching Content The objective of this seminar is to discuss recent work on the macroeconomic impact of Covid-19. Topics include the macroeconomic and distributional effects of lockdown policies and the fiscal policy response to Covid-19. To study the questions at hand, we will analyze modern macroeconomic models, such as (New Keynesian) Dynamic Stochastic General Equilibrium models and macroeconomic models with heterogeneous agents.

Lecturer Chair of International Economics and Political Economy

**Teaching Methods/
Hours per Week** Seminar (2 hours)

Work Load 180 hours

Examination form Based on a presentation and a seminar paper

Prerequisites

Language English

Last offered WS20/21

Recommended Semester 3

Compulsory/Optional One seminar in Subject Area "Macroeconomics and International Economics" is compulsory for majoring in this subject area.
For other students: optional

Seminar: Topics in Macro-Finance: The Euro Crisis

Study Programme

M.Sc. Economics

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits
Learning Outcomes	The objective of this seminar is to discuss recent work on financial crises. The emphasis is on economic concepts developed in the face of the Euro crisis of 2010-2012, which is also the principal application for relevant empirical work.
Teaching Content	<ul style="list-style-type: none">- Capital flows and their allocation- Channels of funding and the role of (shadow) banks- The financial crash and systemic risk- Solvency versus liquidity- The nexus between the private and public sectors- The flight to safety- Unconventional monetary policy
Lecturer	Chair of Macroeconomics
Teaching Methods/ Hours per Week	Seminar (2 hours)
Work Load	180 hours
Examination form	Based on a presentation and a seminar paper
Prerequisites	
Language	English
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	One seminar in Subject Area "Macroeconomics and International Economics" is compulsory for majoring in this subject area. For other students: optional

Current Modules of Subject Area “Microeconomics and Decision Making”

<u>Advanced Microeconomics II</u>	
Study Programme	M.Sc. Economics
Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Demonstrate an advanced understanding of game theory- Apply game-theoretic models to economic issues
Teaching Content	The course covers several topics in game theory, with a focus on auctions and market design. The main topics are: <ul style="list-style-type: none">- Auction theory- Matching markets- Mechanism Design
Lecturer	Jun. Prof. in Behavioural Economics
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	180 hours
Examination form	Based on exercises and a written exam
Prerequisites	Advanced Microeconomics I
Language	English
Time slot and Frequency	Summer Term
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	Compulsory for majoring in Subject Area “Microeconomics and Decision Making”, otherwise optional

Behavioural Economics

Study Programme

M.Sc. Economics

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits

Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Explain and evaluate the major concepts of behavioural economics- Know experimental evidence that demonstrates deviations from the standard model.
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Teaching Content	Behavioural economics investigates the limits of the standard assumptions of rationality and selfishness and presents alternative models. It uses empirical methods to establish robust deviations from standard behavior, called anomalies, and it develops new alternative theories of human behavior, which are better in line with the empirical evidence. The most important areas of behavioural economics are intertemporal, risky and social decision making. With respect to intertemporal decision making, we observe time inconsistent behavior, which can be modelled using hyperbolic discounting. Decisions under risk display many anomalies. Prospect theory is the most prominent theory that captures these anomalies. A crucial element of prospectus theory is loss aversion. Finally. Social or non-selfish preferences have gained considerable attention in recent years.
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Lecturer	Chair of Applied Research in Economics
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Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
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Work Load	180 hours
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Examination form	Based on a final exam
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Prerequisites	Advanced Microeconomics I
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Language	English
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Time slot and Frequency	Winter Term
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Last offered	WS20/21
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Recommended Semester	3
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Compulsory/Optional	Compulsory for majoring in Subject Area "Microeconomics and Decision Making", otherwise optional
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Topics in Advanced Microeconomics

Study Programme

M.Sc. Economics

Credits	10 (Track A); 6 (Track B or C)
Duration	1 Semester
Module contribution to final grade	8,3 % (Track A), 5% (Track B or C) The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to employ the research methods of microeconomics and game theory
Teaching Content	Research topics in microeconomics and game theory
Lecturer	Chair of Microeconomic Theory
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	189 hours
Examination form	Based on presenting solutions to exercises, presentation and a term paper
Prerequisites	Advanced Microeconomics I
Language	English
Time slot and Frequency	Winter Term
Last offered	WS20
Recommended Semester	3
Compulsory/Optional	Optional

Political Economy I: Public Choice

Study Programme

M.Sc. Economics

Credits	4
Duration	1 Semester
Module contribution to final grade	3,3% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Demonstrate a critical understanding of a large variety of issues that arise in the realm of politics- Independently analyse relevant issues- Understand how policy decisions are made, and how they can be improved

Teaching Content The aim is to study the formation of economic policy from a positive – rather than a normative - perspective. This course will cover the main mechanisms through which citizens influence policies, i.e. by voting and by getting organized in interest groups. More specifically, we cover the basic median voter framework, the probabilistic voting model, the citizen-candidate model and some examples of lobbying models. We then look at models concerning the role of politicians.

Lecturer Jun.-Prof. in Public Economics

Teaching Methods/ Hours per Week Lecture (2 hours)

Work Load 120 hours

Examination form Based on an exam

Prerequisites

Language English

Time slot and Frequency Summer Term

Last offered SS20

Recommended Semester 2

Compulsory/Optional Together with Political Economy II it can be selected as a compulsory module for majoring in the Subject Area “Public Economics”
Otherwise optional

Political Economy II: The political economy of human-capital promoting public goods

Study Programme
M.Sc. Economics

Credits 4

Duration 1 Semester

Module contribution to final grade 3,3% The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this module, students will be able to:

- Demonstrate a critical understanding of a large variety of issues that arise in the realm of politics
- Independently analyse relevant issues
- Understand how policy decisions are made, and how they can be improved

Teaching Content In this course we will discuss theoretical and empirical political economy studies that aim to explain why the provision of public goods that improve human capital changed over time and differs across countries/regions. In particular, we will study (1) the consequences of franchise extensions, (2) institutional features of democratic regimes that cause variation in public good provision, and (3) the policy preferences of ruling elites in autocratic/weakly-democratic regimes.

Lecturer Chair of Public Economics

Teaching Methods/ Hours per Week Lecture (2 hours)

Work Load 120 hours

Examination form Presentation, Poster of Research Idea and Participation

Prerequisites

Language English

Time slot and Frequency Summer Term

Last offered SS20

Recommended Semester 2

Compulsory/Optional Together with Political Economy I it can be selected as a compulsory module for majoring in the Subject Area "Public Economics"
Otherwise optional

Compensation and Benefits

Study Programme
M.Sc. Economics

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	Upon a successful completion of the course, students will develop an understanding of C&B as a set of interrelated management practices and its importance as a factor shaping organizational performance. They should be in a position to make informed decisions on the best configuration of C&B to use in a given situation.

Teaching Content This course brings together perspectives from the disciplines of economics and HR management to produce a broad introduction to the key issues in managing employee compensation and benefits (C&B). The course consists of three parts.

The first part of the course will cover the theoretical foundations of wage setting under complete and incomplete information, discussing in particular the topics of efficiency wages, incentive pay and performance evaluation, and relating the above theoretical foundations to the actually observed C&B practices.

The second part of the course will present empirical evidence on the effects of C&B practices on organizational performance, using a selection of famous academic journal articles and case studies.

The role of C&B in strategic management of human resources will be discussed in the third part of the course, with some practical implications for the design of C&B schemes.

Lecturer	Chair in Organisational Economics
Teaching Methods/ Hours per Week	Lecture (2 hours)
Work Load	180 hours
Examination form	Final Exam
Prerequisites	Students should have, or be prepared to gain, a background in microeconomics (especially the principal-agent theory) and good working knowledge of maths (derivatives, integrals, optimization) and statistics (regression analysis).
Language	English
Time slot and Frequency	Winter Term
Last offered	WS19/20
Recommended Semester	2
Compulsory/Optional	Compulsory until WS19/20, otherwise optional

Quantitative Research Methods in Economics

Study Programme

M.Sc. Economics

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.

Learning Outcomes	This course will equip students with the basic statistical tools required to understand a piece of modern empirical research in management, as well as to do sound research themselves. In particular, students will learn about statistical estimation, regression analysis, causality, and statistical analysis of experimental data. Methodological insights from this course will be useful in many other courses in the management curriculum.
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Teaching Content	This course gives an overview of modern techniques of empirical analysis in management and other social sciences. We will start with refreshing the regression analysis, covering, among other topics, the basic estimation techniques and their underlying assumptions as well as the notion of statistical significance. We will then focus on the desirable properties of a statistical estimator (unbiasedness, consistency and efficiency) and discuss a selection of research designs that produce estimates with these properties. Specifically, under this heading we will cover experiments, instrumental variables and panel data.
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Lecturer	Chair in Organisational Economics
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Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
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Work Load	180 hours
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Examination form	Based on a final exam
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Prerequisites

Language	English
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Time slot and Frequency	Winter Term
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Last offered	WS19/20
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Recommended Semester	2
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Compulsory/Optional	Compulsory until WS19/20, otherwise optional
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Seminar: Empirical Political Economy and Development

Study Programme

M.Sc. Economics, M.Sc. Political Economy

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	After completing this seminar, participants should know about the state of research in these areas and should also have a good knowledge of micro-econometric methods commonly used to establish causality.
Teaching Content	This seminar provides an overview of empirical research in political economy and long-run development. We will be studying factors that explain the vast differences in income levels across space and over time, with a focus on empirically establishing how and whether geography, institutions, and culture are ultimate causes of economic growth and political differences.
Lecturer	Jun. Prof in Labour Economics
Teaching Methods/ Hours per Week	Seminar (2 hours)
Work Load	180 hours
Examination form	Based on a presentation and a seminar paper
Prerequisites	Good knowledge in econometrics and statistics
Language	English
Last offered	WS20/21
Recommended Semester	3
Compulsory/Optional	One seminar in Subject Area "Microeconomics and Decision Making" is compulsory for majoring in this subject area. For other students: optional

Seminar: Experimental Economics

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this seminar, students should have a knowledge about the conduction of economic experiments.

Teaching Content Economic experiments are decision making experiments, in which the experimenter controls the economic incentives, a method based on induced value theory. Experiments are usually interactive; therefore, they often implement a game. It is the task of the experimenter to setup the game and to find suitable parameters for the experiment.
In this seminar, you will develop an economic experiment in a group of two people.

Lecturer Chair of Applied Research in Economics

Teaching Methods/ Hours per Week Seminar (2 hours)

Work Load 180 hours

Examination form Based on talk values, oral participation and a thesis

Prerequisites Good knowledge in game theory.
A lecture on economic experiments (or behavioural economics) is helpful

Language English

Last offered SS20

Recommended Semester 2

Compulsory/Optional One seminar in Subject Area "Microeconomics and Decision Making" is compulsory for majoring in this subject area.
For other students: optional

Current Modules of Subject Area “Public Economics”

Public Economics	
Study Programme M.Sc. Economics	
Credits	8
Duration	1 Semester
Module contribution to final grade	8,3% The exact contribution depends on the weighting according to credits.
Learning Outcomes	Students should get a mastery of modern tools of public economics to understand the interplay between the government and the economy. They learn to master recent facts and trends in inequality research. They should understand how labor supply responses to taxes and transfers can be measured and what research design are needed to study those questions.
Teaching Content	This class covers classical topics and new developments in public economics. It start by analyzing standard models of optimal taxation: the linear tax model, nonlinear taxation, and the optimal taxation of top incomes. It then discusses labor supply responses to taxes and transfer and taxable income elasticities. It covers various modern extension of the standard optimal tax framework. Theories of optimal social insurance and their relationship to the data are covered next. It also discusses the evidence on racial inequalities.
Lecturer	Chair of Economic Policy
Teaching Methods/ Hours per Week	Lecture (3 hours), Tutorial (1 hour)
Work Load	240 hours
Examination form	Research Paper, Active Participation, Exam
Prerequisites	
Language	English
Time slot and Frequency	Summer Term
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	Compulsory for majoring in Subject Area “Public Economics”, otherwise optional

Labour Economics I

Study Programme

M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	8,3% The exact contribution depends on the weighting according to credits.
Learning Outcomes	This course is a graduate course in Labour Economics. It aims to familiarize students both with the standard theoretical concepts in the analysis of labour markets, as well as with the empirical methodology and evidence.
Teaching Content	<ul style="list-style-type: none">- The basic model: Labour Supply, Labour Demand, Market equilibrium- Market power: Monopoly and Monopsony- Labour Market Discrimination- Immigration- Wage polarization, labour market inequality, and CEO pay- Intergenerational mobility
Lecturer	Junior Professor in Labour Economics
Teaching Methods/ Hours per Week	Lecture (3 hours), Tutorial (1 hour)
Work Load	240 hours
Examination form	Based on homework, class exercise and a final exam
Prerequisites	
Language	English
Time slot and Frequency	Summer Term
Last offered	SS20
Recommended Semester	2
Compulsory/Optional	Compulsory for majoring in Subject Area "Public Economics" alternatively to Political Economy, Economics of Education or Automation, Globalization and Inequality. Otherwise optional

Automation, Globalization and Inequality

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes Students should get a mastery of modern tools of labor economics to understand the interplay between the labor market and inequality. They learn to master recent methodologies to study those questions. They should understand what research design are needed to study those questions.

Teaching Content This class covers new topics and developments in labor economics. All topic blocks relate to the recent rise in labor market inequality observed in almost all countries. The class starts with the empirical evidence and theoretical models on the importance of firms for the wage structure. It then covers the implications of globalization and automation for labor market inequality. Finally, it studies evidence on models on the rising importance of social skills.

Lecturer Chair of Political Economy

**Teaching Methods/
Hours per Week** Lecture (2 hours)

Work Load 180 hours

Examination form Research Presentation, active participation, exam

Prerequisites Labour Economics I, basic Econometrics

Language English

**Time slot and
Frequency** Winter Term

Last offered WS20/21

**Recommended
Semester** 3

Compulsory/Optional Compulsory for majoring in Subject Area "Public Economics" alternatively to Labour Economics I, Economics of Education or Political Economy. Otherwise optional

**Additional
Information** This module replaces Labour Economics II

Economics of Education

Study Programme
M.Sc. Economics

Credits 8 /10 (option of 10 ECTS not always available)

Duration 1 Semester

Module contribution to final grade 6,6% bzw. 8,3% The exact contribution depends on the weighting according to credits.

Learning Outcomes The goal of the course is that students learn about current topics in education economics. About education policy, about evaluation methods, and about (the reality of) how to do applied research. The course is also designed to prepare students to understand and/or conduct original research (including senior theses).

Teaching Content Module A: Topics in the Economics of Education

- A.1 Introduction

- A.2 The Returns to Human Capital Investments
 - o Human Capital Theory
 - o Signaling in the Labour Market
 - o Returns to Education and Skills
 - o Education and Economic Growth

- A.3 The Production and Financing of Education
 - o Educational Production, Class-Size Effects, and Funding
 - o Teachers and Teaching
 - o Performance Incentives for Teachers and Students
 - o Accountability and Central Exams
 - o School Autonomy
 - o School Choice and Competition
 - o Families and Intergenerational Mobility
 - o Peer Effects and Social Interaction
 - o Educational Tracking
 - o Early Childhood Education Programs
 - o Adult Education and Training

Module B: Econometric Methods for Policy Evaluation

- o Field Experiments
- o Instrumental Variables
- o Regression Discontinuity
- o Differences-in-Differences
- o Fixed Effects

Module C: Reading Sessions and Student Presentations

Lecturer Chair of Public Economics

**Teaching Methods/
Hours per Week** Lecture (4 hours)

Work Load 240 hours

Examination form Based on a final exam for 8 Credits
Based on a take home exercise and a final exam for 10 Credits

Prerequisites

Language English

Time slot and Frequency Winter Term

Last offered WS20/21

Recommended Semester 3

Compulsory/Optional Compulsory for majoring in Subject Area "Public Economics" alternatively to Labour Economics I, Political Economy or Automation, Globalization and Inequality.
Otherwise optional

Economics of Taxation

Study Programme
M.Sc. Economics

Credits	8
Duration	1 Semester
Module contribution to final grade	6,6% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to demonstrate an understanding of the advanced micro-economic theory of taxation.

Teaching Content Within a general equilibrium framework, we deduce the fundamental results of the theory of optimal commodity taxation (Ramsey) and of optimal income taxation (Mirrelees) and discuss the consequences for tax policy. Furthermore, we analyze the effects of income taxation on the holding of risky assets and on the finance decisions of companies. We also deal with tax evasion as a rational decision of economic agents and as a problem of tax policy. Finally, we extend the analysis of optimal taxation by using taxes to finance the provision of public goods, to internalize externalities and to mitigate market imperfections.

Lecturer Chair of Public Economics

**Teaching Methods/
Hours per Week** Lecture (3 hours), Tutorial (1 hour)

Work Load 240 hours

Examination form Based on a final exam

Prerequisites

Language English

**Time slot and
Frequency** Summer Term

Last offered SS19

**Recommended
Semester** 2

Compulsory/Optional Compulsory for majoring in Subject Area "Public Economics" until SS19. Otherwise optional

Empirical Political Economy and Development

Study Programme

M.Sc. Economics, M.Sc. Political Economy

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will have an overview of empirical research in political economy and development in addition to some hands-on data analysis training

Teaching Content	<ul style="list-style-type: none">- Factors that explain the vast differences in income levels across space and over time. The focus of this part will be trying to empirically establish how and whether geography, institutions, and culture are ultimate causes of economic growth.- The second part gives an introduction into field and lab experiments in political economy and development. Students will get an overview of current research in development policy evaluation and of experiments designed to test predictions derived from game-theoretical models, for example voting models. They will also get a thorough introduction into experimental and quasi-experimental methods.
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Lecturer	Jun. Prof. in Behavioural Economics, Jun. Prof. in Labour Economics
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Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
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Work Load	180 hours
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Examination form	Based on a data project and a final exam
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Prerequisites	Good understanding of frequently used tools in applied econometrics, Basic background in microeconomics.
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Language	English
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Time slot and Frequency	Winter Term
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Last offered	WS19/20
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Recommended Semester	3
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Compulsory/Optional	Optional
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Health Economics

Study Programme

M.Sc. Economics

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	On completion of this module, students will be able to analyze health sector issues with the standard tools of economic theory.
Teaching Content	The scope of topics comprises the economic evaluation of life and health, the optimal design of health insurance, payment methods for hospitals and physicians, and the long-run development of health care expenditures.
Lecturer	Chair of Economic and Social Policy
Teaching Methods/ Hours per Week	Lecture (2 hours), Tutorial (1 hour)
Work Load	180 hours
Examination form	Based on a presentation and a final exam
Prerequisites	Advanced Microeconomics I
Language	English
Time slot and Frequency	Winter Term
Last offered	WS19/20
Recommended Semester	3
Compulsory/Optional	Optional

Seminar: Economics of Inequality

Study Programme
M.Sc. Economics

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes On completion of this module, students will be able to pursue independent research based on specific economic problems.

Teaching Content This seminar discusses multiple aspects of economic inequality. Session 1 covers a brief overview on chosen topics of economic inequality. Thereafter, the professor shortly presents selected literature strands

Lecturer Chair of Political Economy

**Teaching Methods/
Hours per Week** Seminar (2 hours)

Work Load 180 hours

Examination form Based on a presentation and a seminar paper

Prerequisites

Language English

Last offered WS20/21

**Recommended
Semester** 3

Compulsory/Optional One seminar in Subject Area "Public Economics" is compulsory for majoring in this subject area.
For other students: optional

Seminar: Empirical Political Economy and Development

Study Programme

M.Sc. Economics, M.Sc. Political Economy

Credits	6
Duration	1 Semester
Module contribution to final grade	5% The exact contribution depends on the weighting according to credits.
Learning Outcomes	After completing this seminar, participants should know about the state of research in these areas and should also have a good knowledge of micro-econometric methods commonly used to establish causality.
Teaching Content	This seminar provides an overview of empirical research in political economy and long-run development. We will be studying factors that explain the vast differences in income levels across space and over time, with a focus on empirically establishing how and whether geography, institutions, and culture are ultimate causes of economic growth and political differences.
Lecturer	Jun. Prof in Labour Economics
Teaching Methods/ Hours per Week	Seminar (2 hours)
Work Load	180 hours
Examination form	Based on a presentation and a seminar paper
Prerequisites	Good knowledge in econometrics and statistics
Language	English
Last offered	WS20/21
Recommended Semester	3
Compulsory/Optional	One seminar in Subject Area "Public Economics" is compulsory for majoring in this subject area. For other students: optional

Seminar: Empirical Public Economics

Study Programme

M.Sc. Economics, M.Sc. Political Economy

Credits 6

Duration 1 Semester

Module contribution to final grade 5% The exact contribution depends on the weighting according to credits.

Learning Outcomes After completion of the course students should be able to understand the most recent microeconomic methods commonly used to evaluate economic policies. They should understand their basic identification strategies, the data requirements to implement these methods as well as their potential shortcomings. The seminar aims at providing students with the necessary skills to understand and to critically assess empirical evaluations of economic policies.

Teaching Content

- Political economy I: Preferences for redistribution
- Political economy II: Preferences for public spending
- Tax policy: Support for inheritance taxation
- Education policy I: Prole models in education
- Labour market policy I: Labour disputes
- Health policy: Smoking bans
- Labour market policy II: Labour market deregulation
- Education policy II: Testing
- Family policy II: Public child care provision
- Education policy III: Computers in classrooms

Lecturer Chair of Public Economics

**Teaching Methods/
Hours per Week** Seminar (2 hours)

Work Load 180 hours

Examination form Based on term paper, presentation, participation and a one-page summary

Prerequisites Solid background in econometrics and statistics

Language English

Last offered SS20

**Recommended
Semester** 2

Compulsory/Optional One seminar in Subject Area "Public Economics" is compulsory for majoring in this subject area.
For other students: optional

Master's Thesis

Study Programme M.Sc. Economics	
Credits	20 (Track A) 30 (Track B or C)
Duration	1 Semester
Module contribution to final grade	25%
Learning Outcomes	On completion of this module, students will be able to: <ul style="list-style-type: none">- Develop a research proposal- Synthesize knowledge and skills previously acquired and applied to an in-depth study- Establish links between theory and methods within their area of study- Present the findings of their research in a coherent and logically argued piece of writing that demonstrates competence in research and the ability to operate independently
Content	The aim of the Master's thesis is to demonstrate that the student is in a position to independently analyze and assess a topic from the field of economics or business administration, within a prescribed time period and using scientifically recognized methods. Students select their own topic for the thesis in consultation with their supervisor. The topic must stem from one of the optional subject areas of the Master's programme. For Track A or B students majoring in a subject area the topic of the thesis must stem from the subject area in which they are majoring.
Supervisor	Each student selects a supervisor (assessor) for the thesis, who can be a professor or a junior professor of the Department of Economics. A further member of the Department's faculty is allocated as the second assessor. One supervisor may be from another department.
Teaching Methods/ Hours per Week	The theoretical and methodological background knowledge for conducting a thesis is acquired through the compulsory and optional subject areas of the Master's programme. Practice in the completion of research papers is obtained in the seminars of the Master's programme.
Work Load	600 hours (Track A) 900 hours (Track B or C)
Examination form	Based on the Master's Thesis
Prerequisites	The relevant courses and seminars of the Master's programme
Language	English
Time slot and Frequency	Summer Term / Winter Term Dependent on student's organization
Recommended Semester	4
Compulsory/Optional	Compulsory