The following tables present a description of the individual modules:

### **Compulsory Modules (57 ECTS-Points)\***

CM 1 Mathematics 1	CM 1 Mathematics for Economists (6 ECTS)	
Content: The module prese	ents the mathematical methods underlying various economic theories and	
applications.		
<u>Learning objectives:</u> The aim is to provide students with the mathematical background that is neces-		
sary for their subsequent st	tudy of economics.	
The Module comprises the	following classes:	
Mathematics for Econo-	Content: The lecture explains selected mathematical methods and dis-	
mists (Lecture, 3 ECTS)	cusses their proofs and applications.	
(CM 1.1)	<u>Learning objectives:</u> The aim is to enable students to master some es-	
	sential mathematical methods used in economics.	
Mathematics for Econo-	<u>Content:</u> The tutorial focuses on various applications of the relevant	
mists (Tutorial, 3 ECTS)	mathematical methods.	
(CM 1.2)	<u>Learning objectives:</u> The aim is to enable students to apply the methods	
	discussed.	
CM 2 Econometrics		
Content: This module presents the methods of econometrics, the field of economics that combines		
the methods of statistical estimation with economic theory.		
Learning objectives: On completion, students will be able to conduct empirical studies using econo-		
metric methods, with the goal of testing the predictions of theoretical models and of forecasting the		
economic decisions of individuals, households, and firms. Moreover, students will be capable of fol-		
lowing current developments in the literature and to assess their relevance for their own research.		
The Module comprises the following classes:		
Econometrics (Lecture, 3	Content: The lecture aims at providing the participants with a profound	
ECTS) (CM 2.1)	understanding of central concepts of econometrics. The focus is on the	
	identifying assumptions required by regression models for different data	
	generating processes and on the appropriate methods for statistical esti-	
	mation.	
	<u>Learning objectives:</u> Students will understand the mathematical and	
	statistical foundations of econometrics as well as the methodology of	
	developing and testing assumptions required to implement econometric	

#### CM 3 Advanced Seminar (15 ECTS)

Econometrics (Tutorial, 3

ECTS) (CM 2.2)

The requirement for admission to the Advanced Seminar is the attainment of at least 42 ECTS-credits.

techniques in research studies.

in practice.

<u>Content</u>: During this seminar students acquire detailed knowledge in a special field of economics. <u>Learning objectives</u>: Students should acquire expertise in a special field of economics and independently apply scientific methods. Students are trained in research and prepared for the Master's thesis. Master's students choose the advanced seminar to correspond to the main topics they have taken in their previous coursework. In the advanced seminar, independently formulated problems will be worked through. The results will be presented in a seminar paper.

realistic case studies with authentic data sets.

<u>Content:</u> The tutorial focuses on the application of econometrics methods

Learning objectives: Students will learn to use econometric methods in

### CM 4 Master's Thesis (30 ECTS)

<u>Content:</u> In the Master's thesis students prove their ability to independently apply scientific methods of economics and to write an original piece of research.

<u>Learning objectives:</u> Students should build up detailed knowledge in the planning, realisation and evaluation of a special issue in economics. This concluding scientific work should be an independently written research thesis in any area of economics. A suitable supervisor for your Master's thesis can be chosen from all professors of the department who are currently teaching over the period of writing your thesis. Please refer to the information on the planned sabbatical semesters of professors.

<sup>\*</sup> Compulsory Modules are taught in English only.

<b>Optional Modul</b>	es (63 ECTS	S-Points)*
OM 1 Four	ndations of A	Applied Economics (18 ECTS)
Content: This module deals with advanced models and methods of micro and macroeconomics as		
well as public economics.		
Learning objective	ves: Students	should be enabled to apply theoretical and empirical methods to differ-
ent areas of econ	omics.	
The Module com	prises the fol	llowing classes:
Applied Microec	onomics	Content: This course deals with microeconomic questions at an inter-
(Lecture, 3 ECTS	S) (OM 1.1)	mediate and advanced level. It presents the basic concepts of con-
		sumer and producer theory, analyzes the working of markets, and
		gives a first introduction into welfare economics, game theory and
		competition theory.
		<u>Learning objectives:</u> The aim of the course is to equip students with
		the methods of microeconomic analysis.
Applied Microec	onomics	Content: The tutorial complements the lecture with practice problems
	0) (0) (	1 1: : : : : : : : : : : : : : : : : :

Applied Microeconomics	<u>Content:</u> The tutorial complements the lecture with practice problems
(Tutorial, 3 ECTS) (OM	and discussions of economic policy.
1.2)	<u>Learning objectives:</u> The aim is to enable students to analyze eco-
	nomic questions on the basis of microeconomic theories.
Applied Macroeconomics	Content: This course deals with advanced macroeconomic models,

(Lecture, 3 ECTS) (OM 1.3) | especially: economic growth and optimal decision making in a sto-

chastic environment, and monetary economics with flexible / sticky
prices.
<u>Learning objectives:</u> To help students understand key macroeconomic
variables such as output, employment, unemployment, inflation, and
interest rates; and develop frameworks for macroeconomic policy

	analysis.
Applied Macroeconomics	Content: Necessary mathematical techniques for advanced macro
(Tutorial, 3 ECTS) (OM	analysis.
1.4)	<u>Learning objectives:</u> To have a deeper understanding of the theories.
Public Economics (Lecture,	Content: The lecture analyses the problems and policy trade-offs for
3 ECTS) (OM 1.5)	modern welfare states under conditions of increasing economic inte-
	gration.
	<u>Learning objectives:</u> Students should learn to analyze the fundamental
	policy trade-offs between efficiency and equity goals in modern wel-
	fare states using modern theoretical and empirical methods.

	fare states using modern theoretical and empirical methods.
Public Economics (Tutorial,	Content: The tutorial deepens the understanding of the lecture by
3 ECTS) (OM 1.6)	means of exercise questions and specific assignments.
	<u>Learning objectives:</u> Students should learn to compare different policy
	options for economic and social policies in open economics and weigh
	them against each other.

	of Economic Research (18 ECTS)	
Content: This module presents fundamental insights and methods of micro and macroeconomics. It		
covers topics that are of particular importance for independent research.		
<u>Learning objectives:</u> The aim is to equip students with an understanding of economic theories and		
methods on a level that en	ables them to pursue independent research in economics.	
The Module comprises the	e following classes:	
Microeconomics (Lec-	Content: This lecture deals with microeconomic questions. It covers de-	
ture, 6 ECTS) (OM 2.1)	mand theory, general equilibrium, game theory, principal-agent problems	
	and problems of adverse selection.	
	Learning objectives: The aim is to equip students with the methods and	
	insights of microeoconomic theory that are essential for independent re-	
	search in this field.	
Microeconomics (Tuto-	Content: The tutorial complements the lecture with practice problems.	
rial, 3 ECTS) (OM 2.2)	Learning objectives: The aim is to enable students to analyze complex	
11a1, 3 LC13) (OW 2.2)	economic questions on the basis of advanced microeconomic theories.	
Macroeconomics (Lec-	Content: This course deals with modern dynamic macroeconomic mod-	
`	· · · · · · · · · · · · · · · · · · ·	
ture, 6 ECTS) (OM 2.3)	els, especially: economic growth and optimal decision making in a sto-	
	chastic environment, and monetary economics with flexible / sticky	
	prices.	
	<u>Learning objectives:</u> To help students understand key macroeconomic	
	variables such as output, employment, unemployment, inflation, and in-	
	terest rates; and develop frameworks for macroeconomic policy analysis.	
Macroeconomics (Tuto-	Content: Necessary mathematical techniques for advanced macro analy-	
rial, 3 ECTS) (OM 2.4)	sis, and applications (adapted from classical and recent research works)	
	of the theories from the lectures.	
	<u>Learning objectives:</u> To have a deeper understanding of the theories, and	
	to develop the techniques for doing frontier research.	
· · · · · · · · · · · · · · · · · · ·	eory (15 ECTS)	
	s with modern economic theory. It covers topics that are of specific impor-	
tance for independent scien		
<u>Learning objectives:</u> The	aim is to bring students close to the current research frontier in economic	
theory and to prepare them	n for independent research in this field.	
The Module comprises the following classes:		
Advanced Economic	Content: In this lecture advanced and complex models of modern eco-	
Theory (Lecture, 6	nomic theory are developed and discussed. These are then applied to	
ECTS) (OM 3.1)	specific economic phenomena.	
	Learning objectives: Students should be enabled to understand advanced	
	and complex models of modern economic theory and to apply them in-	
	dependently to the solution of economic problems.	
Advanced Economic	Content: The tutorial complements the lecture with exercises, case stud-	
Theory (Tutorial, 3	ies and economic discussions.	
ECTS) (OM 3.2)	Learning objectives: Students should learn to interpret and apply the eco-	
	nomic models developed in the lecture correctly and independently.	
Studies in Economic	Content: The lecture covers selected topics and problems in the field of	
Theory (Lecture, 3	modern economic theory.	
• • • • • • • • • • • • • • • • • • • •	· ·	
ECTS) (OM 3.3)	Learning objectives: Students should learn to interpret and apply economical theories correctly and independently	
Studios in Francis	nomical theories correctly and independently.	
Studies in Economic	Content: The tutorial complements the lecture with exercises, case stud-	
Theory (Tutorial, 3	ies and economic discussions.	
ECTS) (OM 3.4)	<u>Learning objectives:</u> Students should learn to interpret and apply the	
	economic models developed in the lecture correctly and independently.	

### OM 4 Applied Economic Analysis and Empirical Economics (15 ECTS)

<u>Content:</u> This module covers the analysis of economic problems with theoretical and empirical methods at an advanced level.

<u>Learning objectives:</u> The aim is to enable students to use these theoretical and empirical methods for all kinds of economic problems.

### The Module comprises the following classes:

* *
nomic Analysis and Em-
pirical Economics (Lec-
ture, 6 ECTS) (OM 4.1)
Advanced Applied Eco-
nomic Analysis and Em-
pirical Economics (Tuto-
rial, 3 ECTS) (OM 4.2)

Advanced Applied Eco-

Content: The lecture presents the use of theoretical and empirical methods at an advanced level to analyze different economic problems.

Learning objectives: The aim is to familiarize students with theoretical and empirical methods and the fundamentals of economic problems.

<u>Content:</u> The tutorial complements the lecture with practice problems, discussions of economic policy, presentations and discussion of topical research articles.

<u>Learning objectives:</u> The aim is to enable students to analyze economic questions with the theoretical and empirical methods discussed in the lecture.

Studies in Applied Economic Analysis and Empirical Economics (Lecture, 3 ECTS) (OM 4.3)

<u>Content:</u> The lecture presents the use of theoretical and empirical methods at an advanced level to analyze different economic problems.

<u>Learning objectives:</u> The aim is to make the students familiar with theoretical and empirical methods and the fundamentals of economic problems.

Studies in Applied Economic Analysis and Empirical Economics (Tutorial, 3 ECTS) (OM 4.4)

<u>Content:</u> The tutorial complements the lecture with practice problems, discussions of economic policy, presentations and discussion of topical research articles.

<u>Learning objectives:</u> The aim is to enable students to analyze economic questions with the theoretical and empirical methods discussed in the lecture.

### OM 5 Public Economics (15 ECTS)

<u>Content:</u> This module deepens students' knowledge in specific areas of public sector economics and introduces students to the current state of research in this field.

<u>Learning objectives:</u> Students should become familiar with current research in public economics and apply modern theoretical and empirical methods to independently analyze selected problems in public sector economics in practice.

# The Module comprises the following classes:

Advanced Public Eco-	Content: The lecture covers optimal taxation, dynamic theories of taxa-
nomics (Lecture, 6	tion and political economic model of public spending.
ECTS) (OM 5.1)	Learning objectives: Students are enabled to understand the most recent
	developments in public economic research and relate them to each other.
Advanced Public Eco-	Content: The tutorial deepens the understanding of current theories of
nomics (Tutorial, 3	public economics by means of exercise questions and the reading of
ECTS) (OM 5.2)	original journal articles.
	Learning objectives: Students should learn to apply advanced theoretical
	and empirical methods to current topics in public economics.
Studies in Public Eco-	Content: The lecture provides a detailed analysis of a specific area of
nomics (Lecture, 3	public sector economics. Applications include the theory and empirics of
ECTS) (OM 5.3)	taxation, social insurance, public spending and the analysis of govern-
	ment decision making (political economics).
	Learning objectives: Students are enabled to understand and analyze cur-
	rent developments in a particular area of public economics, applying
	modern theoretical and empirical tools.

Studies in Public Eco-	Content: The tutorial deepens the understanding of the lecture by means
	<u>,                                      </u>
nomics (Tutorial, 3	of exercise questions and specific assignments.
ECTS) (OM 5.4)	<u>Learning objectives:</u> Students should learn to independently realize and
	analyze the problems and policy questions in a particular area of public
	sector economics.
	search (15 ECTS)
	ents research fields in economics (e.g., game theory, behavioral economical level. It is intended to form the basis for writing the master thesis in one
Learning objectives: The	aim is to enable students to read research articles and to master research
	mics. The course equips students with the prerequisites for being able to
	as on the basis of topical theory and empirical methods.
The Module comprises the	
Advanced Economic	Content: The lecture presents research fields in economics (e.g., game
Research (Lecture, 6	theory, behavioral economics, taxation) at an advanced level. It is in-
ECTS) (OM 6.1)	tended to form the basis for writing the master thesis in one of these
LC15) (OM 0.1)	fields.
	Learning objectives: The aim is to enable students to read research arti-
	cles and to master research methods in modern economics. The lecture
	equips students with the prerequisites for being able to analyze economic
Advanced Economic	questions on the basis of topical theory and empirical methods.  Content: The tutorial complements the lecture with practice problems,
	<u> </u>
Research (Tutorial, 3	discussions of economic policy, presentations and discussion of topical research articles.
ECTS) (OM 6.2)	
	<u>Learning objectives:</u> The aim is to enable students to analyze economic
G. I. · F. · D	questions on the basis of modern theories and empirical methods.
Studies in Economic Re-	Content: The lecture presents research fields in economics (e.g., game
search (Lecture, 3 ECTS)	theory, behavioral economics, taxation) at an advanced level. It is in-
(OM 6.3)	tended to form the basis for writing the master thesis in one of these
	fields.
	Learning objectives: The aim is to enable students to read research arti-
	cles and to master research methods in modern economics. The lecture
	equips students with the prerequisites for being able to analyze economic
	questions on the basis of topical theory and empirical methods.
Studies in Economic Re-	<u>Content:</u> The tutorial complements the lecture with practice problems,
search (Tutorial, 3	discussions of economic policy, presentations and discussion of topical
ECTS) (OM 6.4)	research articles.
	<u>Learning objectives:</u> The aim is to enable students to analyze economic
	questions on the basis of modern theories and empirical methods.
	search & Public Economics (15 ECTS)
<u>Content:</u> This module introduces research oriented students to the current state of knowledge in the	

Content: This module introduces research oriented students to the current state of knowledge in the area of public sector economics.

Learning objectives: Students should learn to apply advanced theoretical and empirical methods to current issues of public sector economics.

The Module comprises the following classes:	
Advanced Economic	Content: The lecture presents research fields in economics (e.g., game
Research (Lecture, 6	theory, behavioral economics, taxation) at an advanced level. It is in-
ECTS) (OM 7.1)	tended to form the basis for writing the master thesis in one of these
	fields.
	<u>Learning objectives:</u> The aim is to enable students to read research arti-
	cles and to master research methods in modern economics. The lecture

	equips students with the prerequisites for being able to analyze economic
	questions on the basis of topical theory and empirical methods.
Advanced Economic	Content: The tutorial complements the lecture with practice problems,
Research (Tutorial, 3	discussions of economic policy, presentations and discussion of topical
ECTS) (OM 7.2)	research articles.
	<u>Learning objectives:</u> The aim is to enable students to analyze economic
	questions on the basis of modern theories and empirical methods.
Public Economics (Lec-	Content: The lecture analyses the problems and policy trade-offs for
ture, 3 ECTS) (OM 1.5)	modern welfare states under conditions of increasing economic integra-
	tion.
	<u>Learning objectives:</u> Students should learn to analyze the fundamental
	policy trade-offs between efficiency and equity goals in modern welfare
	states using modern theoretical and empirical methods.
Public Economics (Tuto-	Content: The tutorial deepens the understanding of the lecture by means
rial, 3 ECTS) (OM 1.6)	of exercise questions and specific assignments.
	<u>Learning objectives:</u> Students should learn to compare different policy
	options for economic and social policies in open economics and weigh
	them against each other.
OM O IM	: 1 E : (15 ECTS)

## OM 8 General Managerial Economics (15 ECTS)

#### Content:

Lectures and courses of this module deal with advanced analysis of specific topics in the field of accounting and taxation as well as corporate finance. In-depth, theoretical methods are imparted to enable evaluation and optimization of investment, financial and risk management activities carried out within companies.

Furthermore, this module discusses marketing activities from a market-based point of view with respect to consumers' needs and market demands. Emphasis is put on innovation in various business areas and on the role of information and communication.

#### Learning objectives:

Students will extend and deepen their knowledge about theoretical concepts of accounting and its practically applicable approaches. In addition to acquiring sound, comprehensive knowledge of how to solve practical financial problems a further objective is for the students to acquire detailed knowledge of relevant quantitative approaches.

The module also provides specific knowledge in the field of Marketing and Strategy as well as theoretical foundations in the thematic areas of innovation, information and communication. These are applied to decision-making situations in the respective areas.

## OM 9 Interdisciplinary Subject (15 ECTS)

<u>Content:</u> In this module students can extend their expertise in economics to neighbouring fields. At the moment students can choose courses in the area of statistics and/or psychology. In the future, we plan to integrate courses in politics, law, and sociology. Within this module the attended courses don't have to be from the same subject. Please note that the credits acquired must add up to a total of 15 ECTS points.

<u>Learning objectives:</u> Economic issues are put into an interdisciplinary context. Basic expertise in neighbouring fields is developed.

## OM 9.1 Statistics

#### OM 9.2 Psychology

\* Optional Modules are taught primarily in English, but a few courses may be taught in German.