

# **Curriculum for the Master's Program in Political and Empirical Economics**

Curriculum 14W as amended 2017

*This translation only serves as information. Legally relevant is the German version, published as Mitteilungsblatt der Karl-Franzens-Universität Graz, 59. Sondernummer of 24 May 2017, 33.b Stück.*

The legal basis for the master's program in *Political and Empirical Economics* are the Universities Act (Universitätsgesetz = UG) and the by-laws (Satzung), particularly the "Legal Regulations on University Studies" by-law (Satzungsteil Studienrechtliche Bestimmungen) of the University of Graz.

On 17 May 2017 and pursuant to § 25, para. 1, point 10, UG, the Senate issued the following curriculum for the master's program in *Political and Empirical Economics*.

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## § 1 General Information

### (1) Admission Requirements

Admission to the master's program in *Political and Empirical Economics* is normally only granted to persons holding an academic degree of at least 180 ECTS credits awarded by a recognized national or international Higher Education Institution (bachelor's degree or equivalent program of at least 180 ECTS) in a field relevant to the master's program in *Political and Empirical Economics*.

The proof of the general university entrance qualification is provided by demonstrating these admission requirements. According to § 60 para. 1 UG, the final decision lies with the Rectorate.

For the verification of language skills required for admission to the University of Graz the following is specified according to § 63 UG as well as article 10 of the regulation of the rectorate on admission of international students to studies at the University of Graz of 20 August 2014 (Mitteilungsblatt 46.a, 2013/14):

- a) The verification of language skills in either German or English is required according to § 63 para. 1 article 3 in conjunction with § 63 para. 10 UG.
- b) This verification is deemed to be given to persons with German or English as a native tongue and/or who are holding an academic degree awarded by a recognized national or international Higher Education Institution in either German or English.
- c) For all other persons not referred to above, the provisions of articles 8 and 9 of the above mentioned regulation of the rectorate apply.

### (2) Subject of Program

Building on a bachelor's program in economics, the master's program in *Political and Empirical Economics* allows students to consolidate their knowledge of this subject and focus on problems related to their pre-professional education and training.

The program offers an academic education in economics oriented to international standards in teaching and research. Students may choose between two emphases:

- Emphasis on *Political Economics* (PEC)
- Emphasis on *Empirical Economics* (EEC)  
For the emphasis on *Empirical Economics*, the University of Graz and the University of Udine (Università degli studi di Udine, Italy) offer a double degree program (see § 2, para. 3).

The master's program in *Political and Empirical Economics* is characterized by:

- A sound theoretical and empirical education.
- A problem-oriented application of quantitative methods and a focus on the application aspects of economics in general.
- Internationality.

A sound theoretical and empirical education means that the courses offered in the program provide a well-balanced mix of theoretical and empirical input. Students are introduced to current research by means of modern teaching methods.

The problem-oriented application of quantitative methods means that students are taught to integrate theoretical fundamentals and empirical methods into economic applications.

Internationality means that the teaching staff is well integrated into the international research community, such as through visiting professorships and research assignments abroad, publications in international specialist media, publication of and cooperation in international specialist journals, organization of international conferences, and cooperation with international colleagues. For students, internationality means learning from English textbooks used around the globe complemented by courses held in English. The program offers a combination of courses in German and in English, thereby preparing students for study abroad as part of the Erasmus program, for a Ph.D. program at an Austrian or foreign university or for working abroad.

### **(2a) Emphasis on *Political Economics***

The emphasis on *Political Economics* is further characterized by:

- A focus on the inherent logic of political processes and the political implementation of economic expertise so that students become familiar with methods and processes of applied economic research and their implementation and are able to analyze and reflect on problems related to political decision-making processes and economic policy advice.
- A pluralism of theories and methods so that a well-ordered variety of academic paradigms is not only represented in the curriculum but also brought into relation with each other in terms of their specific epistemological interests, advantages and limitations.

### **(2b) Emphasis on *Empirical Economics***

The emphasis on *Empirical Economics*, which is taught in English except for a few elective courses, takes into account the growing demand for skills in econometrics, statistics and further quantitative methods (numerical economic models and simulations) and their problem-oriented implementation. It is characterized by:

- The discussion of different empirical-quantitative and econometric methods and on how to choose between them.
- A clarification of the theoretical foundation of empirical work, e.g. deriving hypotheses from theoretical models and verifying these hypotheses empirically.
- A close linking of theoretical and empirical elements, e.g. integrating empirical findings into theoretical models.

### **(3) Qualification Profile and Competences**

Besides the consolidation of specialist knowledge and the acquisition of knowledge through subject-specific methods, the master's program's main focus is on the competences that will accompany students through their careers. The teaching and learning forms are mainly research-oriented. Seminars and other interactive formats give proof of this: On the one hand, they help students to develop their profiles according to their skills and interests with an eye to future professional opportunities; on the other hand, they enable the teaching staff to bring in their research-based expertise. The seminar and master's thesis demonstrate that the student is capable of carrying out independent research. In the master's thesis seminar and colloquium, drafts of the master's thesis are discussed and critically appraised, which should encourage the students' self-reflection ability.

Graduates of the master's program in *Political and Empirical Economics* are able to:

- Think abstractly in models and make deductions and syntheses.
- Understand and critically discuss academic literature on economics.
- Independently recognize and solve conceptual problems.
- Solve economic problems in new contexts.
- Choose and implement (ability to learn) subject-specific methods and procedures independently and in relation to the problem.
- Exploit internal and external resources for their research work and acquire new working techniques (time and project management).
- Work together in German and English speaking teams on projects (social and language competence).

### **(3a) Emphasis on *Political Economics***

In addition, graduates with an emphasis on *Political Economics* are able to:

- Correlate economic paradigms in terms of their epistemological interests, advantages and limitations;
- Solve economic problems in interdisciplinary and/or political contexts;
- Apply methods of theoretical economics and empirical economic research to politics and work out the significance of the inherent logic of political processes in concrete situations.

### **(3b) Emphasis on *Empirical Economics***

In addition, graduates with an emphasis on *Empirical Economics* are able to:

- Integrate theoretical fundamentals and empirical methods to solve and interpret economic problems.
- Implement key empirical-quantitative and econometric methods, select them in connection with the problem and thus consider their explicit and implicit hypotheses.
- Independently learn more specific empirical-quantitative and econometric procedures.

### **(4) Need for and Relevancy of the Program for Science and the Labor Market**

Graduates of the master's program in *Political and Empirical Economics* have a broad range of career opportunities in Austria and abroad in many diverse professional fields, such as in the private sector (economic departments in banks and insurance companies, industrial enterprises, management consultation, etc.), in science and research (universities, non-university institutions, such as the Institute for Advanced Studies, Joanneum Research, the National Bank or the Austrian Institute of Economic Research, Vienna), in the education sector (universities, universities of applied sciences), in journalism, in public administration (ministries, regional governments, diplomatic service), in policy advice (e.g., health, fiscal and environmental policies), in interest groups (the Federation of Austrian Industries, Chamber of Labor, etc.), and in international organizations (OECD, ECB, World Bank, UN, etc.).

In addition, graduates of the master's program are entitled for admission to a subsequent PhD program.

### **(4a) Emphasis on *Political Economics***

The special format of the program with an emphasis on *Political Economics* enables students to set an individual focus at an early stage according to their interests and perceived opportunities on the labor market: those who are pursuing a career in research will mainly make use of the interdisciplinary fundamental research offered in the program, which is of special benefit in view of the growing number of interdisciplinary doctoral programs. Those who are aiming towards applied economic research and policy advice will take advantage of the opportunities to independently work with empirical methods. The multi-paradigmatic and interdisciplinary character of the program is highly relevant professionally speaking to those who benefit from sophisticated interpretations of questions concerning the present and future (journalism, interest groups, and international organizations).

### **(4b) Emphasis on *Empirical Economics***

The focus on the problem-oriented implementation of quantitative methods in the emphasis on *Empirical Economics* prepares students for job opportunities in many areas of business concerned with quantitative issues (banks, insurance companies, management consulting) as well as in university and non-university science and research. This includes important employers ranging from ministries and central banks to international organizations. In principle, the professional fields mentioned in (4a) are open to quantitatively-oriented and trained economists as well. A mastery of quantitative methods is becoming more and more important both in policy advice and in internationally recognized research.

## § 2 General Regulations

### (1) Allocation of ECTS credits

Students are allocated ECTS credits for the work done. ECTS credits reflect the relative workload connected to the relevant course achievements. The yearly workload amounts to 1500 hours in total. With 60 ECTS credits allocated by year, one ECTS credit corresponds to 25 hours of workload, including both self-study and contact hours. One contact hour corresponds to 45 minutes per week.

### (2) Duration and Structure of the Program

The master's program with a workload of 120 ECTS credits lasts four semesters and has a modular structure. The emphases mentioned in § 1, para. 2, *Political Economics* (PEC) and *Empirical Economics* (EEC), share a common block of fundamentals featuring methodological required subjects. In particular, they differ in the economic and methodological core subjects. In addition, PEC students can choose from a broad range of focus areas from neighboring disciplines, while EEC students can only choose subjects in economics and business administration. The core subjects of one emphasis can be chosen as focus area in other emphases. In the emphasis on EEC, structured focus areas can be chosen in cooperation with the University of Udine.

Political Economics (PEC)		Empirical Economics (EEC)	
<b>Analytical and Quantitative Methods</b> 2 compulsory modules (12 ECTS each)24 ECTS			
<b>Core subjects</b> 2 compulsory modules (12 and 18 ECTS)30 ECTS			
<ul style="list-style-type: none"><li>• Public Economics</li><li>• Political Economics</li></ul>		<ul style="list-style-type: none"><li>• Advanced Quantitative Methods</li><li>• Economic Theory and Empirical Applications</li></ul>	
<b>Scientific Writing</b> Seminar and Master's Thesis Colloquium10 ECTS			
<b>Focus Areas</b> 2 elective modules (12 ECTS each)24 ECTS			
<ul style="list-style-type: none"><li>• Welfare improving institutional design</li><li>• Applied Environmental Economics</li><li>• Economic Theory and Empirical Applications</li><li>• Advanced Quantitative Methods</li><li>• Institutional Economics</li><li>• Financial Intermediation</li><li>• International Financial Reporting and Taxation</li><li>• Economic History</li><li>• Sociology and Philosophy of Science</li><li>• Diversity and Gender</li><li>• Elective Module in Economics</li></ul>		<ul style="list-style-type: none"><li>• Welfare improving institutional design</li><li>• Applied Environmental Economics</li><li>• Political Economics</li><li>• Public Economics</li><li>• Institutional Economics</li><li>• Financial Intermediation</li><li>• International Financial Reporting and Taxation</li><li>• Elective Module in Economics</li></ul> <p><b>Double Degree Option with Udine</b> Possible modules:</p> <p>Semester abroad in the <b>2nd semester (SS*)</b>:</p> <ul style="list-style-type: none"><li>• Development Economics</li><li>• Applied Environmental Economics</li><li>• Industrial Economics</li></ul> <p><b>or semester abroad in the 3rd semester (WS**):</b></p> <ul style="list-style-type: none"><li>• Public Economics</li><li>• Economic Policy</li></ul>	
<b>Free electives</b> 6 ECTS			
<b>Master's thesis</b> 26 ECTS			

\*) SS = summer semester, \*\*) WS = winter semester

### **(3) General information on the *Double Degree Mobility Program Empirical Economics***

Double Degree refers to a degree program developed and organized by two or more Higher Education Institutions in collaboration. Graduates will receive two national diplomas issued by the two institutions offering the degree program, providing that the student has successfully completed at least 30 ECTS credits at the partner institution. The degree is recognized officially in the countries where the double-degree-awarding institutions are located. Both diplomas will comprise the explanatory note that the graduate earned one academic degree only and that both diplomas are valid only in combination. Thereby the graduate acquires the exclusive right to hold one academic degree.

Within the Emphasis on *Empirical Economics* a double degree program will be offered in collaboration with the University of Udine (Italy). Courses offered within this mobility program will in principle be held in English. There is also the possibility to choose elective courses in German at the University of Graz.

Students who have been successfully admitted to the master's program are eligible to apply no later than by the end of October of the current academic year for a mobility semester at the partner university in the following semesters. A selection committee consisting of at least 2 lecturers of the program at the University of Graz will select the best qualified applicants for the double degree program based on the application documents handed in. Candidates will be selected based on their prior academic performance. Personal motivation and language skills in English will be also considered.

According to § 3 para. 1c students who have been selected for the double degree program and who have successfully completed courses corresponding to a minimum of 30 ECTS credits at the University of Udine qualify for the awarding of the double degree diploma.

### **(4) Academic Degree**

Upon completion of the joint master's program the students are awarded a „Master of Science in Economics“, MSc (Econ.).

Students who have been selected for the double degree mobility program *Empirical Economics* and who have successfully completed courses at the University of Udine (Università degli studi di Udine) corresponding to a minimum of 30 ECTS credits according to the requirements as stated in §3 para. 1c, are awarded a “Laurea Magistrale in Economics/Scienze Economiche”, M.Sc. by the University of Udine (Università degli studi di Udine) likewise.

### **(5) Modes of Study**

The following Modes of Study are offered:

- a. Lectures (VO) are courses in which the instructors convey knowledge by lecturing. There is one single examination which can be conducted orally or in writing, or in writing and orally.
- b. Kurse (KS) are courses in which students and instructors work together on the subject matter in an experience-based and application-oriented way.
- c. Pro-seminars (PS) are preliminary steps to seminars. They must convey basic knowledge of how to conduct academic work, give an introduction to specialist literature, and deal with exemplary problems in the subject by means of presentations, discussions and case studies.
- d. Seminars (SE) serve as platforms for academic discussion. Participants make their own contributions. As a rule, seminars are completed by a seminar paper.
- e. Lectures with exercises (VU): They are directly connected to teaching and have to deal with concrete tasks and their solutions in accordance with the practical and professional goals of the diploma, bachelor's and master's programs.
- f. In Projects (PT) experimental and/or theoretical work or small research projects will be conducted whilst taking into account all relevant working steps.

All courses mentioned under b. to f. are courses with continuous assessment of student performance.

## (6) Limited Number of Places in Courses and Allocation Ranking

- a. Limits to the number of participants in the individual types of courses apply for either educational reasons or safety reasons.

Course type	Number of participants
Lecture (VO)	no restriction
Kurs (KS)	40
Pro-seminar (PS)	25
Seminar (SE)	15
Lecture with exercise (VU)	60
Project (PT)	20

Differing thereof or in addition the number of participants in the following modules/courses is limited according to the curricula named below.

Module/course	Module title/Examination subject	Number of participants
PEC.J/EEC.J PEC.K/EEC.K PEC.L/EEC.L	Institutional Economics Financial Intermediation International Financial Reporting and Taxation	see Master <i>Business Administration</i>
PEC.N	Sociology and Philosophy of Science	see Master <i>Sociology</i>
PEC.O	Diversity and Gender	see Master <i>Interdisciplinary Gender Studies</i>

- b. If the maximum number of participants is exceeded, admission to courses takes place according to the ranking procedure of the Faculty of Social and Economic Sciences (specified in the Senate's directive on the allocation of places in courses with limited attendance numbers).
- c. In addition to electronic course registration, for the final allocation of places students need to be present in the first meeting. Absent students who are unexcused will be ranked after those who were present in the first meeting.
- d. Students from the University of Udine who have been granted admission to the double degree mobility program will receive a place in all courses stipulated in the cooperation contract for this program.

## § 3 Structure of the Program

### (1) Modules and Courses

The four-semester master's program consists of a total of 120 ECTS credits and has a modular structure. The examination subjects are listed together with the course title, course type, ECTS credits, contact hours, and the recommended semester. The column RS/RE/FE indicates whether it is a required subject (RS), a restricted elective (RE) or a free elective (FE). Students have to choose from the restricted electives according to the regulations. The module descriptions can be found in Appendix I.

Modules A and B convey methodological fundamentals and have to be completed in each of the emphases as mentioned in § 1, para. 2:



	Module title/Examination subject	Course type	RS/RE/FE	ECTS	Contact hrs.	Rec. sem.
<b>Analytical and Quantitative Methods</b>						
<b>Module A</b>	<b>Analytical Methods</b>		<b>RS</b>	<b>12</b>	<b>6</b>	
A.1	Mathematics	KS	RS	6	3	1
A.2	Game Theory	KS	RS	6	3	1
<b>Module B</b>	<b>Quantitative Methods</b>		<b>RS</b>	<b>12</b>	<b>6</b>	
B.1	Statistics	KS	RS	6	3	1
B.2	Microeconometrics	KS	RS	6	3	1 or 3, U*

\*) B.2. must be completed in one variant of the *double degree* mobility program *Empirical Economics* in Udine (U) in the third semester. For further details, please see § 3, para. 1c.

### (1a) Emphasis on *Political Economics* (PEC)

The following modules and courses must be completed in the emphasis on *Political Economics*:

	Module title/Examination subject	Course type	RS/RE/FE	ECTS	Contact hrs.	Rec. sem.
<b>Core subjects</b>						
<b>Module PEC.C</b>	<b>Public Economics</b>		<b>RS</b>	<b>12</b>	<b>4</b>	
PEC.C.1	Public Economics, Social Choice and Normative Economics	KS	RS	6	2	1
PEC.C.2	Institutions, Incentives and Public Choice	KS	RS	6	2	2
<b>Module PEC.D</b>	<b>Political Economics</b>		<b>RS</b>	<b>18</b>	<b>6</b>	
PEC.D.1	Applied Economic Policy	KS	RS	6	2	2
PEC.D.2	Globalization and Development	KS	RS	6	2	3
PEC.D.3	Political Economics from an Austrian/Schumpeterian Perspective	KS	RS	6	2	3
<b>Scientific Writing</b>						
<b>Module PEC.E</b>	<b>Scientific Writing</b>		<b>RS</b>	<b>10</b>	<b>3</b>	
	<b>PEC.E.1 or PEC.E.2</b>					
PEC.E.1	Public Economics	SE	RE	8	2	3
PEC.E.2	Political Economics	SE	RE	8	2	3
PEC.E.3	Master's Thesis Colloquium	SE	RS	2	1	4
<b>Focus Areas</b>						
	<b>Two modules from modules PEC.F to PEC.P</b>			<b>24</b>		
<b>Module PEC.F</b>	<b>Welfare improving institutional design</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
PEC.F.1	Development Economics	KS	RE	6	2	2
PEC.F.2	Advanced Mechanism Design	KS	RE	6	2	2
<b>Module PEC.G</b>	<b>Applied Environmental Economics</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
PEC.G.1	Environmental and Resource Economics	KS	RE	6	2	2
	<b>PEC.G.2 or PEC.G.3</b>					
PEC.G.2	Environmental Economics	SE	RE	6	2	3
PEC.G.3	Empirical Research Project in Environmental Economics	PT	RE	6	2	3

<b>Module PEC.H</b>	<b>Economic Theory and Empirical Applications</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
	<b>Two courses from PEC.H.1 to PEC.H.3</b>					
PEC.H.1	Advanced Microeconomics	KS	RE	6	2	2
PEC.H.2	Macroeconomics and Growth	KS	RE	6	2	3
PEC.H.3	International Economics	KS	RE	6	2	3
<b>Module PEC.I</b>	<b>Advanced Quantitative Methods</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
PEC.I.1	Quantitative Methods in Economic Research	KS	RE	6	3	1
PEC.I.2	Macroeconometrics	KS	RE	6	3	2
<b>Module PEC.J</b>	<b>Institutional Economics</b>		<b>RE</b>	<b>12</b>	<b>6</b>	
PEC.J.1	Organizational Design and Incentive Design 1	PS	RE	4	2	2
PEC.J.2	Organizational Design and Incentive Design 2	PS	RE	4	2	2
PEC.J.3	Organizational Design and Strategy 1	PS	RE	4	2	3
<b>Module PEC.K</b>	<b>Financial Intermediation</b>		<b>RE</b>	<b>12</b>	<b>6</b>	
PEC.K.1	Master's course in Finance	VO	RE	4	2	2
PEC.K.2	Risk Management 1	PS	RE	4	2	3
PEC.K.3	Banking Management 1	PS	RE	4	2	3
<b>Module PEC.L</b>	<b>International Financial Reporting and Taxation</b>		<b>RE</b>	<b>12</b>	<b>6</b>	
PEC.L.1	Master's course in Accounting	VO	RE	4	2	2
PEC.L.2	International Taxation 1	PS	RE	4	2	3
PEC.L.3	International Accounting Standards	PS	RE	4	2	4
<b>Module PEC.M</b>	<b>Economic History</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
PEC.M.1	European Economic History	KS	RE	6	2	3
PEC.M.2	History of the Theory of Population	KS	RE	6	2	2
<b>Module PEC.N</b>	<b>Sociology and Philosophy of Science</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
	<b>Two courses from PEC.N.1 to PEC.N.4</b>					
PEC.N.1	Sociology of Science	KS	RE	6	2	2
PEC.N.2	Philosophy of Social Sciences	KS	RE	6	2	2
PEC.N.3	Fields of Research in Economic Sociology	SE	RE	6	2	3
PEC.N.4	Topical Literature of Economic Sociology	SE	RE	6	2	2
<b>Module PEC.O</b>	<b>Diversity and Gender</b>		<b>RE</b>	<b>12</b>		
	<b>A total of three courses from PEC.O.1 and PEC.O.2; one course with at least 4 ECTS credits must be chosen from each sub-module.</b>					
PEC.O.1	Diversity and Gender 1: Basics	VU/VO	RE	4 - 8		2 and 3
PEC.O.2	Diversity and Gender 2: Advanced	VU/SE	RE	4 - 8		2 and 3
<b>Module PEC.P</b>	<b>Elective Economic Module*</b>		<b>RE</b>	<b>12</b>		
	Elective Economic Module	All	RE	12		2 and 3
<b>PEC.Q</b>	<b>Free electives</b>		<b>FE</b>	<b>6</b>		
	Free electives	All	FE	6		3
<b>PEC.R</b>	<b>Master's thesis</b>		<b>RS</b>	<b>26</b>		
	Master's thesis		RS	26		4

**\*) Elective economic module (Module PEC.P)**

The restricted elective economic module consists of a total of 12 ECTS credits and must be drawn up by the students:

- a. Prerequisite for the recognition of the module is a concentration on a subarea of economics. An additional specialization in analytical and/or quantitative methods used in economics also fulfils this requirement.
- b. The specialization can be obtained by:
  - i) Attending courses at recognized domestic and foreign universities. Course content as set in the modules or courses pursuant to § 3, para. 1 and 1a, must not be duplicated. A maximum of one complete course from the courses stipulated in § 3, para. 1 and 1a can be chosen to complete the module. This course must not be used twice. Courses that have already been completed as part of the program pursuant to § 1 para. 1 will not be recognized.
  - ii) A *subject-related internship* according to § 19 of the "Legal Regulations on University Studies" by-law, during which the acquired economic knowledge and skills are tested out and put into practice. Written documentation of the relevance of the subject (for example an essay) and the kind of activity is needed for recognition. 8 weeks of full employment are worth 12 ECTS credits. The minimum length for an internship is 4 weeks and is worth 6 ECTS credits. Internship is either recognized as "participated successfully" or "participated unsuccessfully".
  - iii) Presenting written proof of *active participation* (e.g. giving a lecture) in *academic events* related to economics such as academic conferences or university summer schools. Each participation shall be worth a maximum of 6 ECTS credits.
  - iv) Students organize a course in cooperation with the teaching staff. Approval of such a *self-organized course* is granted by the Economics curricular committee in advance during the annual course planning.
- c. The elective economic module shall be given a clear title which is also named on the master's certificate.
- d. The chairperson of the Economics curricular committee shall grant approval of the elective module (title, form of specialization) upon a well-founded petition of the student. Students shall apply for recognition in advance (that is before participating in the corresponding courses etc.) by using the respective form. All required documents like syllabi etc. need to be enclosed.

**(1b) Emphasis on *Empirical Economics* (EEC)**

The following modules and courses must be completed in the emphasis on *Empirical Economics*:

	Module title/Examination subject	Course type	RS/RE/FE	ECTS	Contact hrs.	Rec. sem.
<b>Core subjects</b>						
<b>Module EEC.C</b>	<b>Advanced Quantitative Methods</b>		<b>RS</b>	<b>12</b>	<b>6</b>	
EEC.C.1	Quantitative Methods in Economic Research	KS	RS	6	3	1
EEC.C.2	Macroeconometrics	KS	RS	6	3	2
<b>Module EEC.D</b>	<b>Economic Theory and Empirical Applications</b>		<b>RS</b>	<b>18</b>	<b>6</b>	
EEC.D.1	Advanced Microeconomics	KS	RS	6	2	2
EEC.D.2	Macroeconomics and Growth	KS	RS	6	2	3
EEC.D.3	International Economics	KS	RS	6	2	3
<b>Scientific Writing</b>						
<b>Module EEC.E</b>	<b>Scientific Writing</b>		<b>RS</b>	<b>10</b>	<b>3</b>	
EEC.E.1	Empirical Economics	SE	RS	8	2	3
EEC.E.2	Master's Thesis Colloquium	SE	RS	2	1	4

Focus Areas						
	<b>Two modules from modules EEC.F to EEC.I</b>			<b>24</b>		
<b>Module EEC.F</b>	<b>Welfare improving institutional design</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
EEC.F.1	Development Economics	KS	RE	6	2	2
EEC.F.2	Advanced Mechanism Design	KS	RE	6	2	2
<b>Module EEC.G</b>	<b>Applied Environmental Economics</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
EEC.G.1	Environmental and Resource Economics	KS	RE	6	2	2
	<b>EEC.G.2 or EEC.G.3</b>					
EEC.G.2	Environmental Economics	SE	RE	6	2	3
EEC.G.3	Empirical Research Project in Environmental Economics	PT	RE	6	2	3
<b>Module EEC.H</b>	<b>Political Economics</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
	<b>Two courses from EEC.H.1 to EEC.H.3</b>					
EEC.H.1	Applied Economic Policy	KS	RE	6	2	2
EEC.H.2	Globalization and Development	KS	RE	6	2	3
EEC.H.3	Political Economics from an Austrian/Schumpeterian Perspective	KS	RE	6	2	3
<b>Module EEC.I</b>	<b>Public Economics</b>		<b>RE</b>	<b>12</b>	<b>4</b>	
EEC.I.1	Public Economics, Social Choice and Normative Economics	KS	RE	6	2	1
EEC.I.2	Institutions, Incentives and Public Choice	KS	RE	6	2	2
<b>Module EEC.J</b>	<b>Institutional Economics</b>		<b>RE</b>	<b>12</b>	<b>6</b>	
EEC.J.1	Organizational Design and Incentive Design 1	PS	RE	4	2	2
EEC.J.2	Organizational Design and Incentive Design 2	PS	RE	4	2	2
EEC.J.3	Organizational Design and Strategy 1	PS	RE	4	2	3
<b>Module EEC.K</b>	<b>Financial Intermediation</b>		<b>RE</b>	<b>12</b>	<b>6</b>	
EEC.K.1	Master's course in Finance	VO	RE	4	2	2
EEC.K.2	Risk Management 1	PS	RE	4	2	3
EEC.K.3	Banking Management 1	PS	RE	4	2	3
<b>Module EEC.L</b>	<b>International Financial Reporting and Taxation</b>		<b>RE</b>	<b>12</b>	<b>6</b>	
EEC.L.1	Master's course in Accounting	VO	RE	4	2	2
EEC.L.2	International Taxation 1	PS	RE	4	2	3
EEC.L.3	International Accounting Standards	PS	RE	4	2	4
<b>Module EEC.M</b>	<b>Elective Economic Module **</b>		<b>RE</b>	<b>12</b>		
	Elective Economic Module	All	RE	12		2 and 3
<b>EEC.N</b>	<b>Free electives</b>		<b>FE</b>	<b>6</b>		
	Free electives	all	FE	6		3
<b>EEC.O</b>	<b>Master's thesis</b>		<b>RS</b>	<b>26</b>		
	Master's thesis		RS	26		4

**\*\* Elective Economic Module (Module EEC.M)**

See the explanation regarding the economic free elective PEC.P above.

### (1c) Double Degree Empirical Economics (DEC)

In addition, the following modules and courses must be completed in the double degree mobility program *Empirical Economics*, which is taught in English. The study abroad semester at the University of Udine required for the double degree can be completed in the second (SS) or third semester (WS). There are two possible specializations in the second semester.

The courses marked with a "U" in the "Rec. sem." column in Table I must be completed at the University of Udine during the recommended semester; the other courses are taken at the University of Graz. For the *3rd semester in Udine* variant, course B.2 must be completed in Udine in addition to the courses listed in Table I (see § 3, para. 1).

Table I							
	Module title/Examination subject	Course type	RS/ RE/ FE	ECTS	Con- tact hrs.	Rec. sem. if	
						2nd sem. in Udine	3rd sem. in Udine
Core subjects							
Module DEC.C	Advanced Quantitative Methods		RS	12	6		
DEC.C.1	Quantitative Methods in Economic Research	KS	RS	6	3	1	
DEC.C.2	Macroeconometrics	KS	RS	6	3	2.	2
Module DEC.D	Economic Theory and Empirical Applications		RS	18	6		
DEC.D.1	Advanced Microeconomics	KS	RS	6	2	2, U	2
DEC.D.2	Macroeconomics and Growth	KS	RS	6	2	3	3, U
DEC.D.3	International Economics	KS	RS	6	2	3	1
Scientific Writing							
Module DEC.E	Scientific Writing		RS	10	3		
DEC.E.1	Empirical Economics	SE	RS	8	2	3	2
DEC.E.2	Master's Thesis Colloquium	SE	RS	2	1	4	
Focus Areas							
2nd semester (SS) in Udine: Module DEC.F and module DEC.G or DEC.H must be chosen							
Module DEC.F	Development Economics		RE	12	4		
DEC.F.1	Empirical Development Economics	KS	RE	6	2	2, U	-
DEC.F.2	Globalization and Development	KS	RE	6	2	3	-
Module DEC.G	Applied Environmental Economics		RE	12	4		
DEC.G.1	Environmental and Resource Economics	KS	RE	6	2	2, U **	-
DEC.G.2	Empirical Research Project in Environmental Economics	PT	RE	6	2	3	-
Module DEC.H	Industrial Economics		RE	12	4		
DEC.H.1	Industrial Organization	KS	RE	6	2	2, U **	-
DEC.H.2	Information, Incentives and Empirical Applications	KS	RE	6	2	2, U **	-

<b>3rd semester (WS) in Udine: Modules DEC.I and DEC.J must be chosen</b>							
<b>Module DEC.I</b>	<b>Public Economics</b>		<b>RE</b>	<b>12</b>	<b>4</b>		
DEC.I.1	Institutions, Incentives and Public Choice	KS	RE	6	2	-	2
DEC.I.2	Public Economics with Empirical Applications	KS	RE	6	2	-	3, U
<b>Module DEC.J</b>	<b>Economic Policy</b>		<b>RE</b>	<b>12</b>	<b>4</b>		
DEC.J.1	Political Economy	KS	RE	6	2	-	3, U
DEC.J.2	Extent of the Public Sector: Empirical Analysis	KS	RE	6	2	-	3, U
<b>DEC.K</b>	<b>Free electives</b>		<b>FE</b>	<b>6</b>			
	if module DEC.H is chosen	all	FE	6		3	-
	if module DEC.G is chosen	all	FE	6		2, U ** (DEC.H.2)	-
	if 3rd semester in Udine	all	FE	6		-	2
<b>DEC.L</b>	<b>Master's thesis</b>		<b>RS</b>	<b>26</b>			
	Master's thesis		RS	26			4

\*\*) Students who study abroad in Udine in the second semester can choose between courses DEC.G.1 and DEC.H.1. In either case, DEC.H.2 must be completed and if DEC.G.1 is chosen, DEC.H.2 must be used as a free elective.

Table II lists the courses at the University of Udine that are equivalent to the courses marked with "U" in Table I.

<b>Table II</b>						
<b>Courses according to Table I</b>				<b>Equivalent courses at the University of Udine</b>		
<b>Course Title</b>	<b>Cour se type</b>	<b>ECTS</b>		<b>Course Title</b>	<b>Cour se type</b>	<b>ECTS</b>
DEC.C.2	Macroeconometrics	KS	6	Advanced Econometrics <b>or</b> Topics in Econometrics	KS	6
B.2	Microeconometrics	KS	6	Advanced Econometrics <b>or</b> Topics in Econometrics	KS	6
DEC.G.1	Environmental and Resource Economics	KS	6	Environmental and Resource Economics	KS	6
DEC. H.1	Industrial Organization	KS	6	Industrial Organization	KS	6
DEC.J.1	Political Economy	KS	6	Political Economy	KS	6
DEC.D.1	Advanced Micro-economics	KS	6	Advanced Micro-economics <b>and</b> Development Economics	KS	9
<b>and</b> DEC.F.1	Empirical Development Economics	KS	6		KS	9
<b>and</b> DEC.H.2	Information, Incentives and Empirical Applications	KS	6			
DEC.D.2	Macroeconomics and Growth	KS	6	Advanced Macro-economics <b>and</b> Public Economics	KS	9
<b>and</b> DEC.I.2	Public Economics with Empirical Applications	KS	6		KS	9
<b>and</b> DEC.J.2	Extent of the Public Sector: Empirical Analysis	KS	6			

## (2) Prerequisites for Attending Modules/Courses

### (2a) Emphasis on *Political Economics*

1. Registration for the seminars *Public Economics* (PEC.E.1), *Political Economics* (PEC.E.2), *Fields of Research in Economic Sociology* (PEC.N.3) and *Topical Literature of Economic Sociology* (PEC.N.4) requires admission to the master's program in *Political and Empirical Economics*.
2. Furthermore, registration for the following modules and courses requires a positive assessment in certain modules and courses:

Module/Course		Prerequisite for attending the module/course	
PEC.G.3	Empirical Research Project in Environmental Economics	PEC.I.1	Quantitative Methods in Economic Research
Module PEC.J	Institutional Economics	A.1	Mathematics
PEC.K.2 PEC.K.3	Risk Management 1 Banking Management 1	A.1 B.1 PEC.K.1	Mathematics Statistics Master's Course in Finance
PEC.L.2 PEC.L.3	International Taxation 1 International Accounting Standards	PEC.L.1	Master's Course in Accounting

### (2b) Emphasis on *Empirical Economics*

1. Registration for the seminar *Empirical Economics* (EEC.E.1 or DEC.E.1) requires admission to the master's program in *Political and Empirical Economics*.
2. Furthermore, registration for the following modules and courses requires a positive assessment in certain modules and courses:

Module/Course		Prerequisite for attending the module/course	
EEC.G.3 DEC.G.2	Empirical Research Project in Environmental Economics	EEC.C.1 DEC.C.1	Quantitative Methods in Economic Research
Module EE.J	Institutional Economics	A.1	Mathematics
EEC.K.2 EEC.K.3	Risk Management 1 Banking Management 1	A.1 B.1 EEC.K.1	Mathematics Statistics Master's course in Finance
EEC.L.2 EEC.L.3	International Taxation 1 International Accounting Standards	EEC.L.1	Master's course in Accounting

**On principle, the following regulations are valid for both emphases. Any exceptions, distinctions and amendments shall be explicitly listed:**

### (3) Free Electives

During the whole duration of the master's program, students may freely choose and complete courses/examinations worth 6 ECTS credits. These can be freely selected from the courses offered at all recognized domestic and foreign universities as well as all domestic universities of applied sciences and teacher training colleges. They provide students with knowledge and capabilities both in areas connected to their own subject and in areas of general interest.

In addition, free electives provide students the possibility to complete a professional internship according to § 18, para. 5 of the "Legal Regulations on University Studies" by-law. For the recognition procedure, cf. § 3, para. 5, lit c of this curriculum.

#### (4) Master's thesis

- (1) Students must write a master's thesis in the master's program. The thesis is worth 26 ECTS credits. It is recommended to write the master's thesis in the fourth semester.
- (2) The topic of the master's thesis should be taken from one of the following modules/subjects or should be related to the subject of one of these or should use the same methodology:
  - *Public Economics, Political Economics, International Economics, Economic Theory, Environmental Economics, Economic Policy, Micro- and Macroeconometrics.*
  - In the emphasis on *Political Economics*, additionally master's theses on the area of economic history with an economic focus by subject or methodology must be assigned to one of the above mentioned modules/subjects and may be supervised by an authorized member of the Institute of Economic, Social and Business History.
- (3) Students have the right to suggest a topic or to choose from a number of suggestions from the supervisors available.
- (4) The topic of the master's thesis should be chosen so that it is reasonable for the student to deal with this topic within a period of six months.
- (5) Before the master's thesis is assessed, the student must pass the *Master's Thesis Colloquium* (PEC.E.3 in the emphasis on *Political Economics*, and EEC.E.2 or DEC.E.2 in the emphasis on *Empirical Economics*). It is recommended to complete this seminar parallel to writing the master's thesis.
- (6) The master's thesis will be assessed within 2 months.
- (7) In addition, the following applies to the double degree mobility program *Empirical Economics*: The master's thesis shall be written at the home university. In addition to the modules/subjects mentioned in lit. b, the topic of the master's thesis can be either taken from the subject *Development Economics* or *Industrial Economics*. It is recommended to write the master's thesis in English.

#### (5) Study Abroad and Practical Experience

- a. Recommended study abroad  
In the master's program, it is recommended that students complete one semester abroad. If equivalent, courses completed during the study abroad will be recognized by the chairperson of the curricular committee as a required subject or restricted elective. See § 78, para. 5, UG, for the recognition of examinations taken during study abroad (prerecognition or "Vorausbescheid").  
Please note that with the emphases on *Political Economics* as well as *Empirical Economics*, it is possible to recognize courses completed abroad as part of the restricted economic elective according to § 3, para. 1a and 1b.
- b. Obligatory study abroad  
Students of the *double degree* mobility program *Empirical Economics* have to spend in the second or third semester at least one semester at the University of Udine where courses of at least 30 ECTS credits have to be completed.  
Students have to choose courses marked with U in § 3 para. 1c which, according to table II, count equivalent and automatically recognized.
- c. Recommended internship  
It is possible to complete a maximum of 4 weeks of professional internship equivalent to a full-time job as part of the free electives (for a maximum of 6 ECTS credits) whereby one week in terms of a fulltime job is equivalent to 1.5 ECTS. Active participation in a scientific event is regarded as internship likewise. This internship must be approved by the governing bodies responsible for study law and has to complement the program.

#### (6) Teaching and Learning Forms

In addition to the regular teaching and learning forms, blocked courses — e.g., summer or winter schools, intensive programs — can be recognized by the program upon approval by the governing body responsible for study law.

In the *double degree* mobility program *Empirical Economics*, this concerns the teaching and learning forms jointly prepared by the partner universities (e.g., summer or winter schools, intensive programs) that can be used to complete the double degree master's program and to obtain the 30 ECTS credits to be completed at the partner university pursuant to § 3, para. 1c.



Incorporation of new media into teaching (*blended learning*) is possible upon approval by the body responsible for study law. Unless otherwise specified in binding legal provisions, a minimum number of 11 classroom teaching units is required.

### **(7) Language of Instruction**

Wherever possible, all modules/exams may also be held in English.

The following modules/examination subjects are only offered in English:

Modules:

A, B

PEC.C, PEC.F, PEC.G, PEC.H, PEC.I, PEC.J

EEC.C, EEC.D, EEC.E, EEC.F, EEC.G, EEC.I, EEC.J

DEC.C, DEC.D, DEC.E, DEC.F, DEC.G, DEC.H, DEC.I, DEC.J

Examination subjects

PEC.D.2, EEC.H.2

## **§ 4 Examination Regulations**

### **(1) Course Examinations**

Courses without ongoing assessment (VO) have only one examination, which may be conducted orally or in writing or in writing and orally.

All courses except for lectures are with ongoing assessment. They finish with an assessment of the student's continuing participation and of further criteria disclosed by the instructor at the beginning of the course pursuant to § 59, para. 6, UG. The student's performance will be assessed according to the grade scale set up in § 73, para. 1 and 3, UG.

### **(2) Repetition of Examinations**

The repetition of examinations is stipulated in § 38 of the "Legal Regulations on University Studies" by-law.

With regard to repetitions of examinations at the University of Udine in the frame of the *double degree* mobility program *Empirical Economics*, the by-laws of the partner university apply.

### **(3) Recognition of Examinations**

Examinations are recognized upon the degree-program student's application to the body responsible for study law according to § 78, para. 1 UG.

## **§ 5 Coming into Effect**

- (1) This curriculum comes into effect on 1 October 2014 (Curriculum 14W).
- (2) The amendment of this curriculum, published in the Mitteilungsblatt dated from 24 May 2017, no 33.b, Sondernummer 59, comes into effect on 1 October 2017 (Curriculum 14W as amended 2017).
- (3) In case the *double degree* mobility program *Empirical Economics* is negatively evaluated, the following parts of the curriculum cease to be in force at the close of 30 September 2019:
  - § 1 para. 2 the sentence „*For the emphasis on Empirical Economics, the University of Graz and the University of Udine (Università degli studi di Udine, Italy) offer a double degree program (see § 2, para. 3).*”
  - In § 2 para. 2 the sentence „*In the emphasis on EEC, structured focus areas can be chosen in cooperation with the University of Udine*“ as well as all connected specifications in the chart.
  - § 2 para. 3
  - § 2 para. 4 last sentence
  - § 2 para. 6 lit. c

- In § 3 para. 1 the sentence „\*) B.2. must be completed in one variant of the double degree mobility program *Empirical Economics in Udine (U)* in the third semester. For further details, please see § 3, para. 1c)“ as well as the last line of the chart in the right column „or 3,U\*\*“.
  - § 3 para. 1c
  - In § 3 para. 2b Z.1 the term „DEC.E.1“ as well as the terms „DEC.G.2“ and „DEC.C.1“ in the chart
  - § 3 para. 4 lit. e the term „DEC.E.2“
  - § 3 para. 4 lit. g
  - § 3 para. 5 lit. b
  - § 3 para. 6 second sentence
  - In § 3 para. 7 the line „DEC.C, DEC.D, DEC.E, DEC.F, DEC.G, DEC.H, DEC.I, DEC.J“
  - § 4 para. 2 last sentence
  - Annexe I lit. d
  - Annexe II lit. c
  - Annexe III, II. lit. c
- (4) Students who have been admitted to the *double degree* mobility program *Empirical Economics* at the time when it ceases to be in force will continue to be subject to the regulations of this curriculum at the close of 30 September 2022. If students do not complete their studies by 30 September 2022, they cannot be awarded a “Laurea Magistrale in Economics/Scienze Economiche” by the University of Udine.

## § 6 Interim Regulations

- (1) Students of the master's program in Economics who are pursuing their studies according to version 09W of the curriculum at the time this curriculum comes into effect on 1 October 2014 are entitled to complete their studies within 6 semesters according to the regulations of version 09W of the curriculum. If students do not complete their studies by 30 September 2017, they must pursue their further studies according to the curriculum of the master's program in Political and Empirical Economics valid at that time.

Master thesis topics which had been approved before 30 September 2017 may still be pursued by affected students of the master's program *Political and Empirical Economics*.

- (2) During admission period students of the previously valid curriculum are entitled anytime to switch to the current curriculum in force.

Students of the master's program *Political and Empirical Economics* who are pursuing their studies according to version 14W of the curriculum at the time the amendment of the curriculum comes into effect on 1 October 2017, must pursue their studies according to version 17W of the curriculum 2014.

Master thesis topics in *Econometrics* which had been approved before the point of transition may still be pursued by affected students

Students who have successfully completed the courses listed in the left column of the following table by 1 October 2017, need to pass only the courses listed in the right column plus the lecture *Masterkurs Finance* (PEK.K.1 or EEC.K.1, respectively) which must be done in any case in order to complete module PEC.K (EEC.K).

Passed courses	Courses needed for completion of the module
PS Banking Management 1	PS Risik Management 1
PS Financial Management 1	PS Banking Management 1
PS Financial Management 2	PS Banking Management 1 or PS Risik Management 1
At least two of the Pro-Seminars named in § 6 para 2.	None

## Annex I: Module Description

### a) Common modules for both emphases

Module A	Analytical Methods
ECTS Credits	12
Content	<ul style="list-style-type: none"> <li>• Backing of basic mathematical concepts,</li> <li>• static and dynamic models,</li> <li>• (intertemporal) optimization,</li> <li>• normal and extensive form games,</li> <li>• game-theoretic equilibrium concepts,</li> <li>• repeated games,</li> <li>• Bayesian games,</li> <li>• mechanism design,</li> <li>• applications of game theory (e.g. auction theory).</li> </ul>
Learning Outcomes	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Application of mathematical and game-theoretical models to economic problems in other advanced courses,</li> <li>• development and analysis of their own optimization- and equilibrium models,</li> <li>• usage of their increased competence in economic modelling to strengthen their ability to participate in scientific discussions about economic questions.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Methods of team- and self-management.</li> </ul>
Teaching and Learning Methods	Presentation and discussion oriented: Working through central topics of intermediate and advanced textbooks in Mathematical Economics and Game Theory in combination of lectures and solving of exercises by students under the supervision of the course-instructor. Teaching language is English.
Offered	once per academic year

Module B	Quantitative Methods
ECTS-Credits	12
Content	<ul style="list-style-type: none"> <li>• Random variables, univariate probability distributions and their properties, conditional expectations, multivariate distributions,</li> <li>• advanced topics in statistics: Asymptotic theory, limit theorems, extreme value theory, Bayesian statistics,</li> <li>• models and methods for the analysis of individual economic behavior using micro data for individuals, households and companies with focus to discrete, censored, truncated data and self-selection bias,</li> <li>• classical linear regression model (estimation, inference, asymptotic theory, problems and solutions for violated model assumptions),</li> <li>• methods of estimation: Maximum-Likelihood, nonlinear least-squares, generalized method of moments,</li> <li>• models for binary and multinomial variables (Logit, Probit), censored and truncated observations (Tobit),</li> <li>• basic linear panel data models.</li> </ul>
Learning Outcomes	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <p>Students will be</p> <ul style="list-style-type: none"> <li>• introduced and enabled to develop an understanding of quantitative methods and their applications to economic problems,</li> <li>• provided a profound theoretical knowledge of classical statistical approaches and the ability to recognize common structures, differences and similarities in the variety of methods,</li> <li>• enabled to apply classical and advanced modeling techniques coming from mathematical statistics and probability under a critical assessment of their impact and relevance,</li> <li>• enabled to adequately describe and model economic issues by means of econometric techniques,</li> </ul>

	<ul style="list-style-type: none"> <li>provided a supportive context for a critical appraisal by the students of the various econometric and statistical approaches and issues developed for the analysis of economic data,</li> <li>enabled to interpret the results of the quantitative analysis and to draw appropriate conclusions.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>Methods of team- and self-management.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Combination of lectures and discussions of methodological problems and applied economic issues under the supervision of the course-instructor. Individual and group seminar papers on various methodological and applied economic issues. Team work at the PC. Teaching language is English.
<b>Offered</b>	once per academic year

**b) Modules for the emphasis on Political Economics**

<b>Module PEC.C</b>	<b>Public Economics</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>formal analysis of group decision processes,</li> <li>mechanism design,</li> <li>inequality and poverty measures,</li> <li>public goods and externalities,</li> <li>fair division algorithms,</li> <li>socio-economic interactions; institutional designs; decentralized coordination,</li> <li>preferences and behaviour,</li> <li>cooperation, exchange and asymmetries,</li> <li>basic institutional features of capitalist market economies,</li> <li>collective choice and constitutional public choice,</li> <li>party competition; interest groups; political decision processes.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>Ability to implement fair division algorithms in real-world problems and apply various important normative concepts to the analysis of public decision making processes,</li> <li>ability to identify the major aspects in public decision making processes,</li> <li>ability to deal with incentive problems and the design of mechanisms,</li> <li>ability to discuss particular real-world problems of institutional economics using the theoretical concepts in the course,</li> <li>ability to deal with specific problems pertinent to institutional economics by means of formal analysis using the models introduced in the course and variations thereof, including the ability to translate real-world problems into suitable formal structures,</li> <li>ability to connect the various models and concepts of institutional economics in a way enabling them to discuss more overarching issues of the institutional architecture of capitalist market societies.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>Methods of team- and self-management,</li> <li>proficiency in various techniques for the presentation of own research.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Working through central topics of intermediate and advanced text books in public economics and institutional economics by a combination of lectures and solving of exercises by students under the supervision of the course-instructor. Individual and group seminar papers on various methodological and applied issues of economics and public economics. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module PEC.D</b>	<b>Political Economics</b>
<b>ECTS-Credits</b>	18
<b>Content</b>	<p><i>Applied Economic Policy</i></p> <ul style="list-style-type: none"> <li>• In-depth analysis of policy issues in various policy fields such as social security and social welfare, distribution, labor market and family policies,</li> <li>• in-depth analysis of market failure and concomitant rationales for economic policy, including pertinent instruments and relevant institutions,</li> <li>• important methods relevant for the respective fields of economic policy including work with empirical data.</li> </ul> <p><i>Globalization and Development</i></p> <ul style="list-style-type: none"> <li>• Models of exogenous and endogenous growth including their empirical testing,</li> <li>• technological change, structural change, and productivity improvement as explanatory factors of economic development,</li> <li>• models of development economics such as Big Push Theories and the role of the state within development.</li> </ul> <p><i>Political Economics from an Austrian/Schumpeterian Perspective</i></p> <ul style="list-style-type: none"> <li>• The roots and backgrounds of Austrian and Schumpeterian economics in the history of economic thought,</li> <li>• market, central planning and interventionism,</li> <li>• competition, power, and dynamism,</li> <li>• knowledge, information, innovation, and entrepreneurship,</li> <li>• evolutionary concepts in Austrian economic and social theory.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <p><i>Applied Economic Policy</i></p> <ul style="list-style-type: none"> <li>• Ability to prepare case studies in various fields of economic policy, including theory-guided policy analysis supported by empirics,</li> <li>• ability to a discursive consideration of goals, instruments and effects of economic policies,</li> <li>• competence regarding policy advice and critical reflection in selected policy fields, including critical reflection of divergent policy positions.</li> </ul> <p><i>Globalization and Development</i></p> <ul style="list-style-type: none"> <li>• Ability to work with models of growth and development economics and to discuss their explanatory power,</li> <li>• ability to discuss the fundamental driving forces of economic development and their interaction in various historical eras and geographic contexts,</li> <li>• ability to discuss the role of the state and other regulatory institutions in the context of development processes.</li> </ul> <p><i>Political Economics from an Austrian/Schumpeterian Perspective</i></p> <ul style="list-style-type: none"> <li>• Ability to discuss the specific contributions and strengths of Austrian and Schumpeterian economics in the larger context of modern economics,</li> <li>• ability to discuss policy issues on the basis of Austrian/Schumpeterian economics and to elaborate specific policy conclusions,</li> <li>• ability to analyze selected problems on the basis of suitable models.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Methods of team- and self-management, including the basic capacities for self-management needed for scientific work,</li> <li>• ability to present scholarly research in written and oral form.</li> </ul>
<b>Teaching and Learning Methods</b>	Lectures, presentations, discourses, working on case studies, textual work, essay writing. External experts for applied economic policy will be involved whenever suitable. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module PEC.E</b>	<b>Scientific Writing</b>
<b>ECTS-Credits</b>	10
<b>Content</b>	<ul style="list-style-type: none"> <li>• Analysis of problems of public economics, economic policy or political economy including problems of policy implementation,</li> </ul>

	<ul style="list-style-type: none"> <li>• screening, summarizing, and contextualizing pertinent literature, including their application regarding new problems, and suitable modifications/adaptions of theoretical frameworks,</li> <li>• conception and presentation of the plan of the master thesis,</li> <li>• presentation of own research in written and oral form,</li> <li>• critical discussion of research presented by other students,</li> <li>• interaction with the supervisor of the master's thesis.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Ability to analyze practical problems of economic policy and to select the appropriate framework of analysis,</li> <li>• competence to give expert policy advice in selected fields, including critical reflection and discursive consideration of divergent policy positions in public forums,</li> <li>• ability to write critical survey articles, including a discussion of the strengths and weaknesses of different approaches in selected fields.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Mastering of various techniques for the presentation of own findings,</li> <li>• ability to present scholarly research in written and oral form.</li> </ul>
<b>Teaching and Learning Methods</b>	<p>Students must choose one seminar either in <i>Public Economics</i> or in <i>Political Economics</i>. Both seminars are composed of a lecturing part, a part dedicated to guided self-study (including writing of the seminar paper and a „referee report“), and a workshop in which papers are presented and referees (discussants) present their comments.</p> <p>The <i>Master's Thesis Colloquium</i> accompanies the writing of the master's thesis. Teaching language is German.</p>
<b>Offered</b>	Seminar <i>Public Economics</i> resp. <i>Political Economics</i> once per academic year each; <i>Master's Thesis Colloquium</i> : every semester.

<b>Module PEC.F</b>	<b>Welfare improving institutional design</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>• Analysis of the socio-economic change in demographics, urbanization, and education in very long-run models of economic development with focus on open economies and the empirical assessment of these theories,</li> <li>• identification and construction of welfare-improving institutions, rules, and contracts in general and in specific settings such as the provision of public goods and bilateral trade under incomplete information.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Ability to deliberate the interplay of theoretical frameworks and empirical application,</li> <li>• understanding of the complexity of economic development and the influences of socio-economic changes on this process through endogenous changes in economic, demographic, and sociological patterns in one unified economic framework and the empirical relevance of this explanation of economic development for different regions and epochs,</li> <li>• ability to discuss the importance of urbanization and structural change in economic development,</li> <li>• ability to identify inefficiencies in current practices in dealing with economic problems in cities, regions, and states; to analyse its causes and to design abstract but concrete models that can be used to identify such inefficiencies and can help as a guide to improve efficiency,</li> <li>• ability to formulate concrete recommendation to improve contracts and general institutional settings in detail.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Methods of discourses in small groups,</li> <li>• mastering of various techniques for the presentation of own findings.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Combination of lectures and the discussion of findings and the problems of joint seminar paper writing under the supervision of the course-instructor; written group seminar papers on vari-

	ous methodological and applied economic issues and their oral presentation. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module PEC.G</b>	<b>Applied Environmental Economics</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>Advanced topics in different fields of environmental and resource economics,</li> <li>advanced methods and models of environmental and resource economics.</li> </ul> <p>If the seminar <i>Environmental Economics</i> (PEC.G.2) is chosen, in addition:</p> <ul style="list-style-type: none"> <li>Current developments in the respective fields.</li> </ul> <p>If the <i>Research Project in Environmental Economics</i> (PEC.G.3) is chosen, in addition:</p> <ul style="list-style-type: none"> <li>Investigation of an empirical environmental policy question using a quantitative analysis instrument (Computable General Equilibrium – CGE).</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>Ability to understand the models and methods used by leading environmental and resource economists in peer-reviewed journals,</li> <li>ability to identify substantive and methodological relationships to other areas of economics and to use these relationships in problem solving,</li> <li>ability to write and to present scientific work.</li> </ul> <p>If the seminar <i>Environmental Economics</i> (PEC.G.2) is chosen, in addition:</p> <ul style="list-style-type: none"> <li>Ability to describe and to critically analyze the current state of research in selected areas of environmental and resource economics,</li> <li>ability to conduct literature search in relevant international journals, books and the internet.</li> </ul> <p>If the <i>Research Project in Environmental Economics</i> (PEC.G.3) is chosen, in addition:</p> <ul style="list-style-type: none"> <li>Ability to apply an empirical quantitative analysis instrument (CGE) to an environmental policy problem,</li> <li>ability to describe and to assess results of quantitative analysis,</li> <li>ability to search data in relevant statistical databases including data preparation.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>Methods of team- and self-management,</li> <li>mastering of various techniques for the presentation of own findings.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Combination of lectures and the discussion of advanced text books and selected journal articles under the supervision of the course-instructor. Seminar papers (if PEC.G.2) or research projects (teamwork) (if PEC.G.3) on various applied environmental economics issues under the supervision of the course-instructor. Computer-supported teamwork (if PEC.G.3). Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module PEC.H</b>	<b>Economic Theory and Empirical Applications</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<p>This module consists of two courses (to be elected from the following three courses):</p> <p><i>Advanced Microeconomics</i></p> <ul style="list-style-type: none"> <li>Analytical microeconomic characterization of economies, preferences, classical household theory, aggregate demand, theory of the firm, positive and normative microeconomic propositions, empirical applications.</li> </ul> <p><i>Macroeconomics and Growth</i></p> <ul style="list-style-type: none"> <li>Macroeconomic characterization of economies, economic growth (standard neoclassical growth model, overlapping generations, endogenous growth, real business cycles, dynamic stochastic growth theory),</li> <li>application of macroeconomic models for the analyses of household decisions, investment decisions, unemployment, monetary policy, fiscal policy.</li> </ul>

	<p><i>International Economics</i></p> <ul style="list-style-type: none"> <li>• Analysis of international economic relations under monopolistic competition and heterogeneous firms (differences in productivity), empirical analysis of main results of the theory,</li> <li>• new-Keynesian macroeconomic models of international trade under sticky prices.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Understanding of the relevant <i>academic</i> literature and ability to critically discuss this literature,</li> <li>• ability to build “own” models for the theoretical and empirical analysis of economic problems,</li> <li>• application of micro- and macroeconomic principles for the economic analysis of individualized problems,</li> <li>• identification and critical discussion of the assumptions underlying the economic models employed in the course,</li> <li>• ability to reflect on the interaction between theoretical concepts and empirical work.</li> </ul> <p><i>International Economics</i></p> <ul style="list-style-type: none"> <li>• Ability to assess the differences between real international trade theory and international macroeconomics, as well as definitions of the concepts of intertemporal trade,</li> <li>• ability to critically assess the impact of the openness of economies on market allocations (theory and empirical data), economic policy prescriptions based on the results.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Methods of team management,</li> <li>• mastering various methods of presenting own results of economic analyses,</li> <li>• English as the language of science.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Lectures, discussions, individualized work on case studies, presentation of learning processes, media-supported teaching. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module PEC.I</b>	<b>Advanced Quantitative Methods</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>• Numerical simulation, optimization and visualization using mathematical computer software (Mathematica, MatLab, GAMS), applied to case studies of micro- and macroeconomics, international economics and public economics,</li> <li>• applied general equilibrium modeling (computable general equilibrium – CGE), in particular basic models for closed and open economies, analysis of taxes and public goods,</li> <li>• techniques for the analysis of macroeconomic time series such as economic fluctuations, the propagation of shocks or economic policies,</li> <li>• standard stationary time series models (ARIMA), measurement of volatility and risk (ARCH / GARCH), multivariate extensions for simultaneous estimation of several equations (VAR),</li> <li>• estimation procedures and testing of stochastic trends (unit root tests, cointegration, spurious regression, structural breaks).</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Selection and application of appropriate quantitative methods, depending on the economic question, including their critical analysis,</li> <li>• ability to apply mathematical computer software on economic issues,</li> <li>• development and application of an empirical quantitative model (policy analysis),</li> <li>• interpretation of results of quantitative analysis, drawing conclusions and critical discussion of the limits of quantitative modeling,</li> <li>• knowledge of the main econometric and statistical methods for the analysis of economic data and application to relevant economic topics,</li> </ul>



	<ul style="list-style-type: none"> <li>knowledge of how various methods can be applied and what their limitations are.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>Methods of team- and self-management.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Combination of lectures and discussions on methodological and applied economic issues under the supervision of the course-instructor, written team-seminar papers on methodological or applied economic issues, respectively; computer-supported teamwork. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module PEC.J</b>	<b>Institutional Economics</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>Theories in new institutional economics, organizational economics and industrial organization,</li> <li>organizational design and incentives in firms,</li> <li>potential problems and solutions in organizations,</li> <li>make-or-buy and governance issues,</li> <li>strategic management of firms for competitive advantage,</li> <li>oligopolistic competition and strategic interaction,</li> <li>market structures, R&amp;D and spillovers.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>Ability to analyze and design organizational structures,</li> <li>ability to understand potential problems in organizations,</li> <li>ability to design potential solutions for these problems,</li> <li>ability to analyze market structures and understand firm conduct.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>Ability to work in a team.</li> </ul>
<b>Teaching and Learning Methods</b>	Lectures, case studies, teamwork. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module PEC.K</b>	<b>Financial Intermediation</b>
<b>ECTS-Credits</b>	12
<b>Contents</b>	<ul style="list-style-type: none"> <li>Micro-/macroeconomic relevance of financial intermediaries,</li> <li>bank regulation and supervision,</li> <li>purpose and instruments of bank controlling,</li> <li>risk types, risk measurement and risk controlling,</li> <li>quantitative methods in risk management,</li> <li>regulatory requirements for risk- and capital management.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>Expertise and knowledge about products in the banking sector,</li> <li>holistic understanding of the business units of financial institutions,</li> <li>identification of the influence of legal and regulatory conditions as well as market developments on financial institutions and derivation of resulting strategies,</li> <li>understanding of the contribution of risk management to the value-oriented management of financial institutions,</li> <li>understanding and practical application of quantitative methods for measuring risks.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>Ability to independently solve scientific problems,</li> <li>ability to work in a team.</li> </ul>
<b>Teaching and Learning Methods</b>	Lectures, case studies, teamwork. Teaching Language is German.
<b>Offered</b>	once per academic year

<b>Module PEC.L</b>	<b>International Financial Reporting and Taxation</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>Management and financial accounting as information systems,</li> </ul>

	<ul style="list-style-type: none"> <li>• fundamentals of business taxation,</li> <li>• legal foundation and basic principles of international taxation,</li> <li>• double taxation und double taxation agreements,</li> <li>• differences between Austrian and international financial reporting,</li> <li>• financial reporting under International Financial Reporting Standards (IFRS)</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• A thorough understanding of the conception and operation of management and financial accounting as information systems,</li> <li>• an understanding of the demands on accounting as a basis for decision-making,</li> <li>• the ability to describe basic principles of international tax law as well as aspects of international tax planning,</li> <li>• the ability to apply methods against double and minor taxation according to Austrian international tax law to easy and straightforward case studies,</li> <li>• knowledge of essential concepts and rules of IFRS and of their differences in comparison to Austrian Generally Accepted Accounting Principles (GAAP),</li> <li>• the ability to interpret basic provisions of IFRS concerning recognition and measurement and to apply these provisions to easy and straightforward case studies.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Techniques of solving case studies.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Combination of lectures and discussions of findings and problems of jointly developed case studies under the supervision of the course-instructor. Teaching language is German.
<b>Offered</b>	<i>Master's course in Accounting</i> : every semester; <i>International Taxation I</i> resp. <i>International Accounting Standards</i> : once per academic year.

<b>Module PEC.M</b>	<b>Economic History</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>• European economic history – focusing on 20th century,</li> <li>• structures, crises and economic cycles in the European national economies in comparison – since 1918,</li> <li>• the “Population Debate” – early modern until present times,</li> <li>• dogmas about coherences between population and economic development; “Peuplierungs”-model in the 16<sup>th</sup> and 18<sup>th</sup> centuries, Malthusian model, Neo-Malthusianism, “Pessimists” and “Optimists”, from an European debate to a global issue.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Deepened basic competences in scientific research and techniques (source criticism, analysis of textual and formal sources and data),</li> <li>• ability to self-contained and target oriented interpretation and explanation of complex relations in economic history,</li> <li>• ability to explain essential features in European economic history and it's political implications,</li> <li>• ability to explain essential features in the “Population Debate” and it's political and global implications,</li> <li>• development of cross-references between political, societal and economical processes.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Ability to work with various types of learning and working techniques in a critical, self-organized and self-reflective way,</li> <li>• mastering of various techniques for the presentation of own findings.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture, presentation, discussion, textual work, working with documentary material, media-supported course. Teaching language is German.
<b>Offered</b>	once per academic year

<b>Module PEC.N</b>	<b>Sociology und Philosophy of Science</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<p>This module consists of four courses. Only two of these need to be chosen:</p> <ul style="list-style-type: none"> <li>• Social Studies of Science,</li> <li>• Philosophy of Social Science,</li> <li>• Fields of Research in Economic Sociology,</li> <li>• Topical Literature of Economic Sociology.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Writing scientific papers on an advanced level,</li> <li>• analyzing social processes against the background of sociological theories and of critical reflection from the perspective of a sociology of knowledge,</li> <li>• searching for adequate problem solving in an autonomous and goal-oriented way,</li> <li>• combining practical experience with sociological knowledge.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Practical basic competence in communication, co-operation and teamwork.</li> </ul>
<b>Teaching and Learning Methods</b>	Reading, writing, discussion, lecture, presentation, seminar paper. Teaching language is German.
<b>Offered</b>	<p><i>Social Studies of Science</i> and <i>Philosophy of Social Science</i>: every semester;</p> <p><i>Fields of research in Economic Sociology</i> and <i>Topical Literature of Economic Sociology</i>: depending on the offer.</p>

<b>Module PEC.O</b>	<b>Diversity and Gender</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<p><i>Diversity and Gender 1: Basics</i></p> <ul style="list-style-type: none"> <li>• Gender in politics, economics and in the labor market,</li> <li>• theory and methods on social science gender research,</li> <li>• gender as a legal category.</li> </ul> <p><i>Diversity and Gender 2: Advanced</i></p> <ul style="list-style-type: none"> <li>• Inequality in gender relations: equality and diversity policies and strategies,</li> <li>• gender constructions in everyday live („doing gender“),</li> <li>• application-oriented use of empirical social research in the context gender.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Ability to use theories and methods of social science gender research in contexts of gender inequality,</li> <li>• critical reflection of gendered phenomenon in organizations and institutions,</li> <li>• transformation of theoretical analysis of gender inequality into equal opportunity measures and projects,</li> <li>• analysis of gender relations, diversity and inequality by using methods of empirical social research.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Ability to reflect discriminating structures and mechanisms systematically,</li> <li>• practical basic competences in the fields of communication, cooperation, teamwork, working in groups.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture, presentation, discussion, teamwork, seminar paper. Teaching language is German.
<b>Offered</b>	once per academic year

c) Modules for the emphasis on Empirical Economics

<b>Module EEC.C</b>	<b>Advanced Quantitative Methods</b>
<b>ECTS-Credits</b>	12
<i>corresponds Module PEC.I see above.</i>	

<b>Module EEC.D</b>	<b>Economic Theory and Empirical Applications</b>
<b>ECTS-Credits</b>	18
<i>corresponds Module PEC.H see above (without options).</i>	

<b>Module EEC.E</b>	<b>Scientific Writing</b>
<b>ECTS-Credits</b>	10
<b>Content</b>	<ul style="list-style-type: none"> <li>Studying and self-studying of new work from all areas of economics with a focus on empirical assessments of new theoretical insights.</li> <li>Remaining description equals Module <i>PEC.E</i> above (with the exception of the first bullet point).</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>Ability to autonomous reception of new empirical and/or theoretical models,</li> <li>mastering to structure and write own articles that survey important contributions to a particular topic and discuss their merits and weaknesses,</li> <li>ability to select the most suitable framework of analysis for different problems.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>Ability to present scholarly work in written and oral form,</li> <li>mastering of various techniques for the presentation of own findings.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Combination of lectures, students' presentations and the discussion of economic problems and techniques of their exposition under the supervision of the course-instructor; acting as discussant and evaluation of the progress of the works of colleagues. Teaching language is English.
<b>Offered</b>	Seminar <i>Empirical Economics</i> : every semester. <i>Master's thesis Colloquium</i> once per academic year

<b>Module EEC.F</b>	<b>Welfare improving institutional design</b>
<b>ECTS-Credits</b>	12
<i>corresponds Module PEC.F see above.</i>	

<b>Module EEC.G</b>	<b>Applied Environmental Economics</b>
<b>ECTS-Credits</b>	12
<i>corresponds Module PEC.G see above.</i>	

<b>Module EEC.H</b>	<b>Political Economics</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	The content of this module corresponds to those two courses out of three which are chosen in module <i>PEC.D</i> .
<b>Learning Outcomes</b>	Depending on the chosen courses, students will acquire social and methodical skills as described in module <i>PEC.D</i> .
<i>corresponds Module PEC.D see above.</i>	

<b>Module EEC.I</b>	<b>Public Economics</b>
<b>ECTS-Credits</b>	12
<i>corresponds Module PEC.C see above.</i>	

<b>Module EEC.J</b>	<b>Institutional Economics</b>
<b>ECTS-Credits</b>	12
<i>corresponds Module PEC.J see above.</i>	

<b>Module EEC.K</b>	<b>Financial Intermediation</b>
<b>ECTS-Credits</b>	12
<i>corresponds Module PEC.K see above.</i>	

<b>Module EEC.L</b>	<b>International Financial Reporting and Taxation</b>
<b>ECTS-Credits</b>	12
<i>corresponds Module PEC.L see above.</i>	

d) **Module for the Double Degree Empirical Economics**

<b>Module DEC.C</b>	<b>Advanced Quantitative Methods</b>
<b>ECTS-Credits</b>	12
<i>corresponds Module PEC.I see above.</i>	

<b>Module DEC.D</b>	<b>Economic Theory and Empirical Applications</b>
<b>ECTS-Credits</b>	18
<i>corresponds Module PEC.H see above (without options).</i>	

<b>Module DEC.E</b>	<b>Scientific Writing</b>
<b>ECTS-Credits</b>	10
<i>corresponds Module EEC.E see above.</i>	

<b>Module DEC.F</b>	<b>Development Economics</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>• Growth models of exogenous and endogenous technological change and their empirical assessment,</li> <li>• modelling technological and structural change and the secular increase in productivity and assessing their contributions to economic development,</li> <li>• development economics models such as „Big Push“-Theories and the role of the state in development,</li> <li>• analysis of socio-economic change in demographics, urbanization, and education in very long-run models of economic development with focus on open economies and the empirical assessment of these theories.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Ability to autonomous work with models of growth and development theories including the discussion of their range of explanation,</li> <li>• ability to discuss the fundamental drivers of economic development and their interplay in different regions and epochs,</li> <li>• assessing the role of the state and other regulations and institutions in the development process;</li> <li>• explaining the importance of openness of markets in the development process,</li> <li>• deliberating the interconnection of theoretical concepts and empirical work.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Methods of discourses in small international groups,</li> <li>• mastering of various techniques for the presentation of own findings.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Combination of lectures and the discussion of findings and the problems of joint seminar paper writing under the supervision of the course-instructor; written group-seminar papers on various methodological and applied economic issues and their oral presentation. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module DEC.G</b>	<b>Applied Environmental Economics</b>
<b>ECTS-Credits</b>	12
<i>Corresponds Module PEC.G see above (without Seminar Environmental Economics).</i>	

<b>Module DEC.H</b>	<b>Industrial Economics</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>• Analysis of static models of imperfect competition in prices and quantities,</li> <li>• models of product differentiation using marketing activities and to mitigate search costs of consumers,</li> <li>• explaining vertical differentiation by competition in quality and signaling of high quality,</li> <li>• models of price discrimination,</li> <li>• strategic behavior at market entry and exit, innovation and investment.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Ability to discuss the fundamental market structures monopoly, oligopoly, and monopolistic competition,</li> <li>• mastering the application of game theoretic instruments in one and more-period games,</li> <li>• ability to explain strategic behavior of firms concerning pricing, marketing, vertical integration and tacit collusion,</li> <li>• ability to assess the role of government regulation and to discuss firms' reactions to these interventions,</li> <li>• ability to discuss the interplay of theoretical and empirical work.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Mastering a study abroad,</li> <li>• methods of discourses in small international groups.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Combination of lectures and the discussion of findings and the problems of joint seminar paper writing under the supervision of the course-instructor; written group-seminar papers on various methodological and applied economic issues and their oral presentation. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module DEC.I</b>	<b>Public Economics</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>• Socio-economic interactions; institutional designs; decentralized coordination,</li> <li>• preferences and behavior,</li> <li>• cooperation, exchange and asymmetries,</li> <li>• basic institutional features of capitalist market economies,</li> <li>• collective choice and constitutional public choice,</li> <li>• party competition; interest groups; political decision processes,</li> <li>• tax incidence and efficiency; optimal tax theory,</li> <li>• tax systems and tax reform,</li> <li>• fiscal federalism,</li> <li>• analysis of the welfare state.</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Ability to discuss particular real-world problems of institutional economics using the theoretical concepts in the course,</li> <li>• ability to deal with specific problems pertinent to institutional economics by means of formal analysis using the models introduced in the course and variations thereof, including the ability to translate real-world problems into suitable formal structures,</li> <li>• ability to connect the various models and concepts of institutional economics in a way enabling them to discuss more overarching issues of the institutional architecture of capitalist market societies,</li> <li>• ability to critically evaluate the main tax systems in OECD countries concerning their efficiency and distributional aspects,</li> <li>• ability to analyze specific tasks of the welfare state w.r.t. health, pensions, unemployment, poverty and education.</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Methods of team- and self-management,</li> <li>• mastering of various techniques for the presentation of own findings.</li> </ul>

<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Working through central topics of intermediate and advanced text books in public economics and institutional economics by a combination of lectures and solving of exercises by students under the supervision of the course-instructor. Individual and group seminar papers on various methodological and applied issues of economics and public economics. Teaching language is English.
<b>Offered</b>	once per academic year

<b>Module DEC.J</b>	<b>Economic Policy</b>
<b>ECTS-Credits</b>	12
<b>Content</b>	<ul style="list-style-type: none"> <li>• Markets and equilibrium analysis as basis for policy analysis: welfare properties of competitive equilibria, positive theory, allocations under alternative institutions,</li> <li>• individual versus collective decisions, social choice,</li> <li>• important fields in economic policy: macroeconomic empirical analysis of fiscal policy, public debt, regulation of monopolies (empirical case studies), policies related to energy, water, and transport, finance of public infrastructure (public private partnerships).</li> </ul>
<b>Learning Outcomes</b>	<p>Upon successful completion of the module, students have the following substantive and methodological skills:</p> <ul style="list-style-type: none"> <li>• Understanding of the relevant <i>academic</i> literature on theoretical and empirical economic policy questions as well as on collective decision making,</li> <li>• identification and critical assessment of assumptions underlying different economic policy programs,</li> <li>• ability to analyze and critically assess different theoretical and empirical approaches to economic policy (specifically tax policy implications for consumption, investment, growth, international competitiveness, impact of public debt on the financial stability of the public sector, models of regulation of monopolies, public-private partnerships).</li> </ul> <p>Students acquire social and personal skills such as:</p> <ul style="list-style-type: none"> <li>• Methods of team management,</li> <li>• English as the language of science.</li> </ul>
<b>Teaching and Learning Methods</b>	Lecture- and discourse oriented: Lectures, discussion, individual work on case studies, media-supported course. Teaching language is English.
<b>Offered</b>	once per academic year

## Annex II: Sample curriculum structured in semesters

The following sample curricula are only recommendations, thus not compulsory. They should serve as an orientation.

### a) Emphasis on Political Economics

Semester	Subject	ECTS
<b>1</b>		<b>30</b>
A.1	Mathematics	6
A.2	Game Theory	6
B.1	Statistics	6
B.2	Microeconometrics	6
PEC.C.1	Public Economics, Social Choice and Normative Economics	6
<b>2</b>		<b>30</b>
PEC.C.2	Institutions, Incentives and Public Choice	6
PEC.D.1	Applied Economic Policy	6
PEC.F to PEC.P	Elective Module I	12
PEC.F to PEC.P	Elective Module II	6
<b>3</b>		<b>32</b>
PEC.D.2	Globalization and Development	6
PEC.D.3	Political Economics from an Austrian/Schumpeterian Perspective	6
PEC.E.1 <b>or</b> PEC.E.2	Public Economics <b>or</b> Political Economics	8
PEC.F to PEC.P	Elective Module II	6
PEC.Q	Free Electives	6
<b>4</b>		<b>28</b>
PEC.E.3	Master's Thesis Colloquium	2
PEC.R	Master's Thesis	26



**b) Emphasis on Empirical Economics**

<b>Semester</b>	<b>Subject</b>	<b>ECTS</b>
<b>1</b>		<b>30</b>
A.1	Mathematics	6
A.2	Game Theory	6
B.1	Statistics	6
B.2	Microeconometrics	6
EEC.C.1	Quantitative Methods in Economic Research	6
<b>2</b>		<b>30</b>
EEC.C.2	Macroeconometrics	6
EEC.D.1	Advanced Microeconomics	6
EEC.F bis EEC.I	Elective Module I	12
EEC.F bis EEC.I	Elective Module II	6
<b>3</b>		<b>32</b>
EEC.D.2	Macroeconomics and Growth	6
EEC.D.3	International Economics	6
EEC.F bis EEC.I	Elective Module II	6
EEC.N	Free Electives	6
EEC.E.1	Seminar <i>Empirical Economics</i>	8
<b>4</b>		<b>28</b>
EEC.E.2	Master's Thesis Colloquium	2
EEC.O	Master's Thesis	26

**c) Double Degree Empirical Economics**

*Option a): Compulsory mobility in the second semester (SS)  
Choice between options i) and ii)*

Semester	Subject		ECTS
<b>1</b>			<b>30</b>
A.1	Mathematics		6
A.2	Game Theory		6
B.1	Statistics		6
B.2	Microeconometrics		6
DEC.C.1	Quantitative Methods in Economic Research		6
<b>2</b>	<b>All courses at the University of Udine</b>		<b>30</b>
DEC.C.2	Advanced Econometrics <b>or</b> Topics in Econometrics		6
DEC.D.1 and DEC.F.1 and DEC.H.2	Advanced Microeconomics		9
	Development Economics		9
i) DEC.H.1 <b>or</b> ii) DEC.G.1	i) Industrial Organization* <b>or</b>	ii) Environmental and Resource Economics**	6
<b>3</b>			<b>32</b>
DEC.D.2	Macroeconomics and Growth		6
DEC.D.3	International Economics		6
DEC.F.2	Globalisation and Development		6
i) DEC.K <b>or</b> ii) DEC.G.2	i) Free Electives <b>or</b>	ii) Empirical Research Project in Environmental Economics	6
DEC.E.1	Seminar <i>Empirical Economics</i>		8
<b>4</b>			<b>28</b>
DEC.E.2	Master's Thesis Colloquium		2
DEC.L	Master's Thesis		26

\*) If Industrial Organization (DEC.H.1) is chosen, course DEC.H.2 completes module DEC.H.

\*\*) If Environmental and Resource Economics (DEC.G.1) is chosen, course DEC.H.2 is to be chosen as free elective (DEC.K.).

Option b): Compulsory mobility in the third semester (WS)

Semester	Subject	ECTS
<b>1</b>		<b>30</b>
A.1	Mathematics	6
A.2	Game Theory	6
B.1	Statistics	6
DEC.C.1	Quantitative Methods in Economic Research	6
DEC.D.3	International Economics	6
<b>2</b>		<b>30</b>
DEC.C.2	Macroeconometrics	6
DEC.D.1	Advanced Microeconomics	6
DEC.I.1	Institutions, Incentives and Public Choice	6
DEC.E.1	Seminar <i>Empirical Economics</i>	8
DEC.K	Free Electives	4
<b>3</b>	<b>All courses at the University of Udine</b>	<b>30</b>
B.2	Advanced Econometrics <b>or</b> Topics in Econometrics	6
DEC.D.2 and DEC.I.2 and DEC.J.2	Advanced Macroeconomics	9
	Public Economics	9
DEC.J.1	Political Economy	6
<b>4</b>		<b>30</b>
DEC.K	Free Electives	2
DEC.E.2	Master's Thesis Colloquium	2
DEC.L	Master's Thesis	26