The English version of the curriculum for the "Master Program in Applied Economics" is not legally binding and is for informational purposes only. The legal basis is regulated in the curriculum published in the University of Innsbruck Bulletin on 4 May 2007, issue 52, No. 226. Decision of the Curriculum Committee of the Faculty of Economics and Statistics on 05.03.2007, approved by Senate Decree on 08.03.2007.

On the basis of § 25 paragraph 1 no. 10 University Act 2002, BGBI. I (Federal Law Gazette) No. 120, most recently amended by Federal Law BGBI. I (Federal Law Gazette) No. 74/2006 and § 32 Section "Regulations of Study Law", republished in the University of Innsbruck Bulletin of 3 February 2006, Issue 16, No. 90, most recently amended by the University of Innsbruck Bulletin of 4 December 2006, Issue 7, No. 36, the following is decreed:

#### Curriculum for the

# **Master Program Applied Economics**

at the Faculty of Economics and Statistics of the University of Innsbruck

# § 1 Qualification profile

- (1) The Master program Applied Economics aims at deepening and supplementing the scientific education preparing students for careers in the economic sciences and builds on a subject-related Bachelor program. In its core it consists of teaching scientific theories, methods and tools applied in the economic sciences. It also incorporates the findings of gender research. The Master program Applied Economics is listed among the programs in social and economic sciences.
- (2) The Master program is research-based. It widens and deepens the students' specialist knowledge, qualifies them for scientific research thereby laying the foundations for an advancement of the field. It qualifies the students for leading positions by imparting faculties such autonomy, discrimination and decision-making.
- (3) Apart from broadening the students' specialist knowledge the Master program also aims at a deepening and specialization in the area of the faculty's research areas. In the final Master thesis the students are to apply the newly acquired theories and methods to topical subject-related issues.
- (4) The Master program Applied Economics seeks to prepare students for leading, planning, analyzing and counseling occupations in corporations and industries of varying size, including free-lance jobs, as well as for employment in the civil service, organizations, chambers, special interest groups and the media, and also for jobs in teaching and/or research institutions as well as in non-profit and international organizations.
- (5) Graduates of the Master program Applied Economics
  - are well-grounded in the field of economics which will enable them to tackle new tasks quickly and self-reliantly,

- are able to apply their acquired knowledge and expertise in a professional way towards the solution of problems in their field,
- are able to successfully apply the acquired methods in their research as well as to test them critically and develop them further,
- have acquired specialist and social competences which prepare them well for leading positions

## § 2 Length and scope

- (1) The Master program Applied Economics comprises 120 ECTS-credit points which equals 4 semesters
- (2) The program is divided up into modules.

## § 3 Admission

- (1) Admission to the Master program Applied Economics requires the completion of a subject-based Bachelor program at a university or college or equivalent studies at accredited domestic or foreign post secondary educational institutions.
- (2) This precondition is fulfilled with the completion of the Bachelor program Management and Economics at the University of Innsbruck.

## § 4 Modules

- (1) A module constitutes a thematic unit and usually comprises courses equivalent to four semester hours (= 60 teaching units of 45 minutes each) and ten ECTS credit points.
- (2) All modules consist of two courses one of which being a course with continuous performance assessment, except for
  - 1. The mandatory module referred to in § 7 (1).
  - 2. The elective module referred to in § 7 (2/14) which is provided by a different Master program and has to be completed according to the regulations of the respective curriculum.
- (3) The curriculum consists of mandatory and elective modules.

# § 5 Types of courses and maximum numbers of students per course

- (1) Lectures are scientific talks which introduce students to the subject or provide explanations and discussions of research issues along with methodical approaches and present current research results. The maximum number of participants amounts to 140.
- (2) Courses with continuous performance assessment are:
  - 1. Proseminars (PS): Proseminars impart the basics of scientific research, introduce students to the economics literature and current level of knowledge in the field and deal with issues of the subject in an exemplary way.
  - 2. Seminars (SE): Seminars aim at deepening the scientific discourse. Participants are expected to deliver written and/or oral contributions of their own. The maximum number of participants is 20.

# § 6 Procedure for the allotment of places in courses with a limited number of participants

In courses with a limited number of participants course places are allotted as follows:

- 1. Every student enrolled in the program is allotted a quota of twice 1000 points at the beginning of the registration period of the respective semester. This quota expires at the end of the registration period.
- 2. Every student uses an optional number of points of her/his first quota of 1000 points for the desired course thus expressing her/his preference for the first allotment round of the course places.
- 3. Every student uses an optional number of points of her/his second quota of 1000 points for the desired course thus expressing her/his preference for the second allotment round of the course places.
- 4. Every student is allotted up to three course places in modules. The allotment of a course place in a particular module depends on the number of points taken from the first quota for each course. It is important that the students check the requirements for admission to a course beforehand.
- 5. Every student is allotted course places in modules according to the number of points taken from the second quota of points providing she or he fulfills the requirements for admission to the courses. These are course places which have not been allotted previously (cf. 2 to 4).
- 6. The number of course places which have been allotted according to the procedure described in 1 to 5 must not exceed the number of course places needed to acquire the 30 ECTS-credit points per semester as prescribed by the curriculum.
- 7. Students who have been allotted fewer course places than are necessary to acquire the 30 ECTS-credit points per semester are granted course places that have not been allotted in the procedure described in 1 to 3.
- 8. In order to acquire the necessary 30 ECTS-credit points per semester every student is granted the required number of course places according to the procedure described in 1 to 7.

# § 7 Title, scope and content of the mandatory and elective modules inclusive of ECTS-credit points

(1) The following modules - equal to 50 ECTS-credit points - are mandatory:

	Mandatory modules	Sem. hours	ECTS-credits
1.	Analytical Methods in Economics	4	10
2.	Microeconomics	4	10
3.	Macroeconomics	4	10
4.	Game Theory	4	10
5.	Econometrics	4	10

(2) Elective modules – equal to 40 ECTS-credit points – are to be chosen from the following list:

	Elective modules	Sem. hours	ECTS-credits
1.	Public Finance	4	10
2.	Environmental Economics	4	10
3.	Industrial Economics	4	10
4.	Experimental Economics and Behavioral Economics	4	10

5.	International Economics – Trade Theory and Policy	4	10
6.	Open Economy Macroeconomics	4	10
7.	Institutional Economics	4	10
8.	Microeconometrics	4	10
9.	Econometrics – Time Series Analysis	4	10
10.	Economic and Social History	4	10
11.	Regional Economics	4	10
12.	Advanced Regression Analysis	4	10
13.	Gender and Economics	4	10
14.	Foundations of Empirical Finance	4	10

(3) The module "Defense of Master Thesis" is mandatory:

Manadatory Module	Sem. hours	ECTS-credits
Defense of Master Thesis		2,5

# § 8 Type, scope and short description of the courses of the mandatory and elective modules inclusive of ECTS-credit points

(1) Mandatory modules referred to in § 7 (1):

1.	Mandatory Module	Analytical Methods in Economics	Туре	SH	ECTS
a.	Lecture:	Analytical Methods in Economics: Linear algebra, methods of optimization, probability theory, integral calculus, differential equations, equations of differences.	Lecture	2	4
b.	Proseminar:	Analytical Methods in Economics: Elaborating on the material presented in the lecture.	Proseminar	2	6
				4	10

**Objectives:** Acquisition of advanced knowledge in the field of analytical methods in economics, development of debating skills and solution of advanced problems.

Requirement for admission to the courses of the module: none

2.	Mandatory Module	Microeconomics	Туре	SH	ECTS
a.	Lecture:	Microeconomics: Theory of demand (indirect utility function, duality, homothetic preferences, insecurity, partial and general equilibrium, information economics.	Lecture	2	4
b.	Proseminar:	<b>Microeconomics:</b> Elaborating on the material presented in the lecture.	Proseminar	2	6
				4	10

**Objectives:** Acquisition of advanced knowledge in the field of microeconomics, acquisition of skills to discuss and solve advanced microeconomic problems.

Requirement for admission to the courses of the module: none

3.	Mandatory	Macroeconomics	Туре	SH	ECTS
	Module				
a.	Lecture:	Macroeconomics: Neoclassical and			
		endogenous growth theories, real	Lecture	2	4
		business cycle and new Keynesian			
		theories of economic fluctuations.			
b.	Proseminar:	Macroeconomics: Elaborating on the			
		contents presented in the lecture.	Proseminar	2	6
				4	10

**Objectives:** Acquiring knowledge of the most relevant issues in dynamic macroeconomics and some of their implications for understanding key macroeconomic issues relating to economic growth and business dynamics.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory module **Analytical Methods in Economics.** 

4.	Mandatory Module	Game Theory	Туре	SH	ECTS
a.	Lecture:	Game Theory: Presentation of games, concepts of dominance, static games of complete and incomplete information, dynamic games of complete and incomplete information.	Lecture	3	6
b.	Proseminar:	Game Theory: Elaborating on the			
		material presented in the lecture.	Proseminar	1	4
				4	10

**Objectives:** Acquisition of advanced knowledge in the field of non-cooperative game theory; development of skills to discuss and solve advanced game theoretic problems.

Requirement for admission to the courses of the module: none

5.	Mandatory Module	Econometrics	Туре	SH	ECTS
a.	Lecture:	Econometrics: Inference, asymptotic statistics, methods of statistical estimations, model diagnostics, multivariate equation systems, panel econometrics, discrete choice models.	Lecture	3	6
b.	Proseminar:	<b>Econometrics:</b> Elaborating on the material presented in the lecture.	Proseminar	1	4
				4	10

**Objectives:** Acquisition of advanced knowledge in the field of econometrics; development of skills to discuss and solve advanced econometric problems.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory module **Analytical Methods in Economics.** 

# (2) Elective modules referred to in § 7 (2):

1.	Elective Module	Public Finance	Туре	SH	ECTS
a.	Lecture:	<b>Public Finance:</b> Application of advanced theoretical and empirical methods on topics of public finance.	Lecture	2	4
b.	Seminar:	<b>Public Finance</b> : Exercises and case studies on the basis of the current scientific literature.	Proseminar	2	6
				4	10

**Objectives:** Acquisition of advanced knowledge in public finance, development of skills for the critical and autonomous discussion of advanced problems in the field of public finance.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory module **Microeconomics.** 

2.	Elective Module	Environmental Economics	Туре	SH	ECTS
a.	Lecture:	Environmental Economics: Application of advanced theoretical and empirical economic methods for the analysis of problems in the field of environmental economics and for the preparation of decisions in environmental politics.	Lecture	2	4
b.	Seminar:	Environmental Economics: Reflection on the applicability of environmental economic analyses on the basis of the current scientific literature and case studies.	Seminar	2	6
				4	10

**Objectives:** Acquisition of advanced knowledge in environmental economics, development of skills for the critical and autonomous discussion of advanced problems in the field of environmental economics.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory module **Microeconomics.** 

3.	Elective Module	Industrial Economics	Туре	SH	ECTS
a.	Lecture:	Introduction to the Theory of Industrial Economics: Introduction to the models and methods of the theory of industrial economics.	Lecture	3	6
b.	Seminar:	Introduction to the Theory of Industrial Economics: Elaborating on the material presented in the lecture by solving problem sets.	Seminar	1	4
				4	10

**Objectives:** Acquisition of advanced knowledge in industrial economics, development of skills for the critical and autonomous discussion of advanced problems in the field of industrial economics.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory modules **Analytical Methods in Economics** and **Game Theory.** 

4.	Elective	Experimental and Behavioral Economics	Туре	SH	ECTS
	Module				
a.	Lecture:	Introduction to Experimental and			
		Behavioral Economics: Basics and essential	Lecture	2	4
		issues of experimental and behavioral			
		economics, methodology, applications and			
		case studies dealing with essential problems.			
b.	Seminar:	Introduction to Experimental and			
		Behavioral Economics: Elaborating on the	Seminar	2	6
		material presented in the lecture by studying			
		examples from the current literature and			
		instructing students to design and program			
		experiments on their own.			
				4	10

**Objectives:** Acquisition of advanced knowledge in experimental and behavioral economics, development of skills for the critical and autonomous discussion of advanced problems in the field of experimental and behavioral economics.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory modules **Analytical Methods in Economics** and **Game Theory.** 

5.	Elective	International Economics	Туре	SH	ECTS
	Module				
a.	Lecture:	International Economics: Trade theory and			
		policy, theory of multinational corporations,	Lecture	3	6
		economic integration and trade policy.			
b.	Seminar:	International Economics: Elaborating on the			
		material presented in the lecture by studying	Seminar	1	4
		the current literature.			
				4	10

**Objectives:** Acquisition of advanced knowledge in international economics, development of skills for the critical and autonomous discussion of advanced problems in the field of international economics.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory modules **Microeconomics** and **Econometrics**.

6.	Elective Module	Open Economy Macroeconomics	Туре	SH	ECTS
a.	Lecture:	Open Economy Macroeconomics: Currency markets and foreign exchange rate regimes, purchasing power parity, monetary and fiscal policy in open national economies, capital flows and currency crises, international monetary integration.	Lecture	3	6
b.	Seminar:	Open Economy Macroeconomics: Elaborating on the material presented in the lecture by studying the current literature.	Seminar	1	4

				4	10
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**Objectives:** Acquisition of advanced knowledge in open economy macroeconomics, development of skills for the critical and autonomous discussion of advanced problems in the field of macroeconomics.

**Requirement for** admission to the courses of the module is the positive assessment of the mandatory modules **Macroeconomics** and **Econometrics**.

7.	Elective	Institutional Economics	Туре	SH	ECTS
	Module				
a.	Lecture:	Institutional Economics: property rights, contract theory, theory of the firm, economic constitutional theory, economic	Lecture	2	4
		regional theory.			
b.	Seminar:	Institutional Economics: Reflecting on the analyses of institutional economics by means of studying the current literature and analyzing case studies.	Seminar	2	6
				4	10

**Objectives:** Acquisition of advanced knowledge in institutional economics, development of skills for the critical and autonomous discussion of advanced problems in the field of institutional economics.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory module **Microeconomics**.

8.	Elective Module	Microeconometrics	Туре	SH	ECTS
a.	Lecture:	Microeconometrics: Microeconometric models for the analysis of individual data (logit, probit, tobit, count data models), panel econometrics.	Lecture	3	5
b.	Seminar:	Microeconometrics: Elaborating on the material presented in the lecture through the practical application of the models.	Seminar	1	5
				4	10

**Objectives:** Acquisition of advanced knowledge in microeconometrics, development of skills for the critical and autonomous discussion of advanced problems in the field of microeconometrics. **Requirement for admission** to the courses of the module is the positive assessment of the

mandatory module Econometrics.

9.	Elective	Econometrics - Time Series Analysis	Туре	SH	ECTS
	Module				
a.	Lecture:	Econometrics - Time Series Analysis:			
		Stochastic process, estimation of moment	Lecture	3	5
		functions (expectation, covariance),			
		statistical inference in the frequency			
		domain, unit root tests, ARIMA models,			
		ARCH & GARCH models (simulation of value			
		at risk), multivariate time series analysis,			
		applied examples from finance and			

		macroeconomics.			
b.	Seminar:	<b>Econometrics - Time Series Analysis:</b>			
		Elaborating on the material presented in the lecture through the practical application of the models in simulated and empirical time series.	Seminar	1	5
				4	10

**Objectives:** Acquisition of advanced knowledge in econometric time series analysis, development of skills for the critical and autonomous discussion of advanced problems in the field of econometric time series analysis.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory module **Econometrics.** 

10	Elective Module	Economic and Social History	Туре	SH	ECTS
a.	Lecture:	<b>Economic and Social History:</b> Problemoriented analysis of economic and social developments in history.	Lecture	2	4
b.	Seminar:	<b>Economic and Social History:</b> Treatment of selected topics taken from the lecture.	Seminar	2	6
				4	10

**Objectives:** Acquisition of advanced knowledge in economic and social history, development of skills for the critical and autonomous discussion of advanced problems in the field of economic and social history.

Requirement for admission to the courses of the module: none

11.	Elective Module	Regional Economics	Туре	SH	ECTS
a.	Lecture:	Regional Economics: Theory of regional development and the interaction of interregional networks.	Lecture	2	4
b.	Seminar:	Case studies in Regional Economics:  Methods of the analysis of regions and case studies of regional development.	Seminar	2	6
				4	10

**Objectives:** Acquisition of advanced knowledge in regional economics, development of skills for the critical and autonomous discussion of advanced problems in the field of regional economics.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory modules **Microeconomics** and **Macroeconomics**.

12.	Elective Module	Advanced Regression Analysis	Туре	SH	ECTS
a.	Lecture:	Advanced Regression Analysis: Smoothing techniques, single index models, additive models and extensions (geoadditive models, dynamic models, models with varying coefficients), spatial econometrics.	Lecture	2	5
b.	Seminar:	Advanced Regression Analysis:			
		Elaborating on the material presented in the	Seminar	2	5

	lecture through practical application of methods, development of case studies on the computer.		
		4	10

**Objectives:** Acquisition of advanced knowledge in advanced regression analysis, development of skills for the critical discussion of advanced problems in the field of advanced regression analysis.

**Requirement for admission** to the courses of the module is the positive assessment of mandatory module **Analytical Methods in Economics.** 

13.	Elective Module	Gender and Economics	Туре	SH	ECTS
a.	Lecture:	Gender and Economics: Introduction of the gender dimension in labor economics, e.g. employment behavior, wage differentials, occupational choice, fertility and intrafamilial allocation of resources, reproductive economy. Empirical analysis, and related social policy issues.	Lecture	3	6
b.	Seminar:	<b>Gender and Economics:</b> Reflection of the contents presented in the lecture, based on recent economics journal articles, case studies.	Seminar	1	4
				4	10

**Objectives:** Introduction to the economic modeling of the gender dimension in economic theory. Attention is given to the empirical evidence and the economic and social policy implications.

**Requirement for admission** to the courses of the module is the positive assessment of the mandatory module **Microeconomics.** 

14.	Elective	Foundations of Empirical Finance	Туре	SH	ECTS
	Module				
a.	Lecture:	Foundations of Empirical Finance: The most			
		important methods and results from	Lecture	2	6
		empirical finance research: time series			
		analyses, event studies, the use of neural			
		networks, multivariate analyses, etc.			
b.	Seminar:	Foundations of Empirical Finance: The			
		seminar concentrates on details of specific	Seminar	2	4
		questions raised in the lecture and trains			
		students to develop concepts for solutions.			
				4	10

**Objectives:** Understanding, reflecting on and applying central methods and results of empirical finance research.

**Requirement for admission** to the courses of the module is the positive assessment of the four mandatory modules.

# (3) Mandatory module

	Mandatory Module	Defense of Master Thesis			ECTS
		Oral Defense of Master thesis			2,5
<b>Objectives:</b> Reflection on the thesis as a scientific project in the overall context of the Master					
program Applied Economics.					
<b>Requirement for the admission</b> to the module is the positive assessment of the thesis.					

### § 9 Master thesis

- (1) The completion of a Master thesis is mandatory.
- (2) The Master thesis has to meet the scientific standards of the subject with regard to content and methodology and has to exhibit an economic or statistical focus.
- (3) Participants of the Master program are entitled to propose the topic of their Master thesis themselves or choose their topic from a list of proposals.
- (4) The Master thesis equals 27.5 ECTS-credit points.
- (5) The written announcement of both the topic and the supervising tutor of the Master thesis requires the positive assessment of four mandatory modules referred to in § 7 (1).
- (6) The positive assessment of the Master thesis is followed by the final module "Defense of Master Thesis" referred to in § 7 (3).

### § 10 Examination regulations

- (1) With the exception of the mandatory module referred to in  $\S$  7 (3) and the elective module referred to in  $\S$  7 (2/14) the assessment of a module is conducted as follows:
  - The assessment of a module which consists of a lecture and a course with continuous performance assessment is effected by the assessment of the course with continuous performance assessment and the result of a final exam covering the entire contents of the two courses of the module. A positive assessment of the course with continuous performance assessment is required for the admission to the final exam.
- (2) The mandatory module "Defense of Master Thesis" referred to in § 7 (3) completing the Master program is assessed in an oral examination by an examiner.
- (3) In the courses with continuous performance assessment the tutor determines the method of assessment (oral/written examinations, papers) at the beginning of the course.
- (4) Final examinations in modules comprise the contents of the entire module and are supervised by an examiner. The final examination consists of a written examination (maximum duration: 90 minutes).
- (5) The assessment of the elective module "Foundations of Empirical Finance" referred to § 7 (2/14), which is taken from the Master program *Banking and Finance*, is carried out according to the provisions of the examination regulations of the curriculum from which it is adopted.

# § 11 Academic Degree

After the completion of the Master program Applied Economics students are awarded the degree "Master of Science" (abbreviation: MSc).

# § 12 Coming into force

This curriculum comes into force on October 1<sup>st</sup> 2008.

For the Curriculum Committee: For the Senate:

Univ.-Prof. Dr. Gerhard Marinell Univ. -Prof. Dr. Ivo Hajnal

# Appendix: Recommended schedule for the Master Program Applied Economic

	Mandatory Modules	Elective Modules
1 <sup>st</sup> semester	Analytical Methods in Economics	
	Microeconomics	
	Game Theory	
2 <sup>nd</sup> semester	Macroeconomics	Elective Module 1
	Econometrics	
3 <sup>rd</sup> semester		Elective Module 2
		Elective Module 3
		Elective Module 4
4 <sup>th</sup> semester	Master thesis and Defense	