# Opasraportti

# TaTK - Economics 2012-2013 (2012 - 2013)

The degree programme in Economics has two tracks (majors): Economics and Finance. The degree programme provides students with a strong theoretical and methodological knowledge, with a focus on the intersection of theory and practice. The approach in both majors is analytical and quantitatively oriented. Upon graduation, the students will have the necessary skills required to work in demanding specialist and executive positions in corporations, governmental agencies and third sector organizations.

Economics (major) focuses on explaining the behavior of different economic agents, such as households, companies and general government. The aim is to describe, explain and model the modern market economy. Common questions in economics are, among others: how the degree of competition affects the behavior or firms, how international risks affect domestic firms, and the efficient ways of organizing economic activity in different competitive environments. Economics also gives tools to assess, for example, the effect of different policy actions on the economy.

After the basic level studies the student is familiar with the fundamental concepts in economics and the essential economic relationships. After the intermediate studies the student has obtained the knowledge of basic ideas in economic theory and methods, and is able to produce scientific writings. After the advanced levels studies the student has obtained skills to analytically solve economic problems and to conduct independent economic research.

### **Degree structure**

Basic studies (ECTS):

- 721211P Kansantaloustieteen perusteet (Principles of Economics) 10
- 721313P Kansantaloustieteen oppihistoria (History of Economic Thought) 5

In addition, at least 10 ECTS of the following:

721115P Raha- ja pankkiteoria (Theory of Money, Banking and Monetary Policy)	5	
721217P Julkinen talous (Public Sector Economics)	5	
721236P Ympäristötaloustieteen perusteet (Principles of Environmental Economics) 5		
721237P Kaupunki- ja aluetalous (Urban and Regional Economics Policy)	5	
721362P Introduction to Financial Economics	5	
721208P Additional Basic Level Courses in Economics	5	

### Intermediate studies:

721230A Kansantaloustieteen seminaari (Seminar in Economics)10721215A Makrotaloustieteen perusteet (Intermediate Macroeconomics)5721216A Mikrotaloustieteen perusteet (Intermediate Microeconomics)5

In addition, at least 10 ECTS worth of the following:

721247A	Kilpailuanalyysi (Analysis of Competition)	5
721218A	Kansainvälisen talouden perusteet (Principles of International Economics)	5
721248A/S	S Ympäristö- ja luonnonvaratalous (Environmental and Resource Economics)	5/6
721242A	Työn taloustiede (Labour Economics)	5
721245A	Taloudellinen kehitys (Development of Economics)	5
721343A	Immateriaalioikeuksien taloustiede (Economics and Management of Intellectual Property)	5
721241A	Harjoittelu (Internship)	5
721002A	Additional Intermediate Studies in Economics	5

### Advanced studies:

721330S Master's Thesis in Economics	30
721310S Makrotaloudellinen analyysi (Macroeconomic Analysis)	6
721320S Mikrotaloudellinen analyysi (Microeconomic Analysis)	6

In addition, at least 18 ECTS worth of the following:

721954S Financial Econometrics	6
721317S Kansainvälinen talous (International Economics)	6
721333S Kilpailuanalyysin jatkokurssi (Advanced Analysis of Competition)	6
721342S Peliteorian perusteet (Game Theory)	6
721337S Finanssipolitiikka (Financial Policy)	6
721339S Ekonometrian tilastolliset perusteet (Statistical Foundations of Econometri	ics) 6
721336S Special Issue	6

# Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja jaksot

721208P: Additional Courses in Economics, Basic Level, 0 op 721002A: Additional Courses in Economics, Intermediate Level, 0 op 721247A: Analysis of Competition, 5 op 721245A: Development Economics, 5 op 721343A: Economics and Management of Intellectual Property, 5 op 721210P: Economics for Business, 5 op 721248A: Environmental and Resource Economics, 5 op 721337S: Fiscal Policy, 6 op 721342S: Game Theory, 6 op 721313P: History of Economic Thought, 5 op 721333S: Industrial Organization, 6 op 721215A: Intermediate Macroeconomics, 5 op 721216A: Intermediate Microeconomics, 5 op 721317S: International Economics, 6 op 721060A: Introduction to Econometrics, 5 op 721242A: Labour Economics, 5 op 721310S: Macroeconomic Analysis, 6 op 721330S: Master's Thesis, Economics, 30 op 721220A: Mathematical Economics, 5 op 721320S: Microeconomic Analysis, 6 op 721211P: Principles of Economics, 10 op 721236P: Principles of Environmental Economics, 5 op

721218A: Principles of International Economics, 5 op
721217P: Public Sector Economics, 5 op
721230A: Seminar in Economics, 10 op
721336S: Special Issue, 6 op
721339S: Statistical Foundations of Economitrics, 6 op
721115P: Theory of Money, Banking and Monetary Policy, 5 op
721237P: Urban and Regional Economics and Policy, 5 op

# Opintojaksojen kuvaukset

# Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

721208P: Additional Courses in Economics, Basic Level, 0 op

Opiskelumuoto: Basic Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

ECTS Credits: 5 ects. Language of instruction: Free. Timing: Free. Learning outcomes: To be agreed with Professor in Economics. Assessment methods and criteria: Depends on the course. Courses in other Finnish or foreign universities can also be included. Person responsible: The Professors of Economics.

# 721002A: Additional Courses in Economics, Intermediate Level, 0 op

Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

ECTS Credits: Depends on the extent of the course. Language of instruction: Free. Timing: Free. Learning outcomes: To be agreed on with Professor in Economics. **Assessment methods and criteria:** Depends on the course. Courses in other Finnish or foreign universities can also be included. **Person responsible:** The Professors of Economics.

# 721247A: Analysis of Competition, 5 op

Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Maria Kopsakangas-Savolainen Opintokohteen kielet: Finnish

### **ECTS Credits:**

5 ects. Language of instruction: English / Finnish. Timing: Period D. Learning outcomes:

Upon successful completion of this course, students should be able to analyze and evaluate models of competitive, oligopolistic, and monopoly markets and understand how price and non-price competition among firms affect economic welfare. They should be also able to use principles of game theory in analyzing firms' strategic decisions and be able to intelligently speculate the motives of real world pricing and other decisions of the firms. Students should also be ready to more advanced courses of industrial organization. **Contents:** 

# Functioning of imperfect competition, monopoly, oligopoly (Cournot and Bertrand), cartel, price discrimination, product differentiation, principles of game theory, strategic behavior, innovations and research and development.

Mode of delivery:

### Face-to-face teaching.

Learning activities and teaching methods:

24 h lectures, homework and independent reading of the textbooks.

### Target group:

Students with a major or minor in economics.

Prerequisites and co-requisites:

Principles of Microeconomics.

Recommended optional programme components:

### **Recommended or required reading:**

L.M.B. Cabral, Introduction to Industrial Organization. MIT Press. 2000.

Check availability from <u>here.</u> **Assessment methods and criteria:** Final exam. **Grading:** The course utilizes a numerical grading scale 1-5. In the numerical scale zero stands for fail. **Person responsible:** Senior researcher Maria Kopsakangas-Savolainen. **Working life cooperation:** 

# 721245A: Development Economics, 5 op

Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail **ECTS Credits:** 5 ects. Language of instruction: Finnish, English if needed. Timina: Periods B (3 rd year autumn). Learning outcomes: After completing the course the students will be familiar with the theory and most recent empirical results on economic development. **Contents:** Uneven distribution of wealth and income between nations; poverty; population growth; immigration, impact of economic policy on economic development. Learning activities and teaching methods: Independent reading of the textbook. Recommended optional programme components: Principles of Economics. Recommended or required reading: Todaro, M.P & S.C. Smith: Economic Development. 10th ed., Addison Wesley, 2008. Check availability from here. Assessment methods and criteria: Literature examination.

**Grading:** 1-5. **Person responsible:** Professor Mikko Puhakka.

# 721343A: Economics and Management of Intellectual Property, 5 op

Voimassaolo: 01.08.2007 -Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Tuomas Takalo Opintokohteen kielet: Finnish

ECTS Credits: 5 ects. Language of instruction: Finnish. Timing: Not organized during academic year 2012-2013. Learning outcomes:

After completion the course students should be able to apply economic way of thinking in analyzing the impact of intellectual property rights to the strategy of business management, to the incentives on innovations and to the welfare.

### Contents:

Patents and other intellectual property rights, valuation and protection strategies of intellectual property, competition policy and intellectual property rights, intellectual property rights in digital economy and in network industries.

### Learning activities and teaching methods:

12 hours of lectures and independent reading of the literature.

### Recommended or required reading:

Scotchmer, S. Innovation and Incentives, MIT Press 2004.

Check availability from <u>here.</u> Assessment methods and criteria: Lectures and literature examination. Grading: 1-5. Person responsible: Docent Tuomas Takalo.

# 721210P: Economics for Business, 5 op

**Opiskelumuoto:** Basic Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Tommi Inkilä

#### Opintokohteen kielet: Finnish

### Leikkaavuudet:

ay721210P Economics for Business (OPEN UNI) 5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits: 5 ects. Language of instruction: Finnish. Timing: Period A. Learning outcomes:

After completing the course, the student can describe how firms, consumers and government interact in markets and how the economy as a whole operates. In addition, the student can apply the principles of economic way of thinking. These principles can be used to examine e.g. consumers' consumption decisions, firm's production decisions or the behavior of the aggregate market.

### **Contents:**

Market mechanism: price formation, importance of prices in directing the economic resources, role of consumers, firms and public authority in market economy. The course covers all of the major principles of economics, but its focus is on applying these economic principles to the real world of business.

Learning activities and teaching methods:

30 hours of lectures and individual reading of the literature.

### Recommended or required reading:

Begg, D. & Ward, D.: Economics for Business 3. ed., McGraw-Hill Education (2009) and other material given in class.

Check availability from <u>here.</u> Assessment methods and criteria: Exam Grading: 1-5. Person responsible: Lecturer in Economics. Other information: The number of students is limited.

# 721248A: Environmental and Resource Economics, 5 op

Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail

### **ECTS Credits:**

5/6 ects.

### Language of instruction:

Finnish\*

\*The course can be passed with a literature examination and a summary of a scientific article in English. The students wishing to do that should contact the teachers.

Timing:

Period A (3 <sup>rd</sup> year autumn).

# Learning outcomes:

Students can graphically and mathematically describe the socially optimal level of pollution and define the efficiency conditions of the crucial policy instruments of pollution control. They can apply the most important methods for monetary valuation of environmental benefits and empirically examine the demand of environmental commodities. In addition, students can formally present the models describing optimal use of natural resources and apply these models in practical decision making.

## Contents:

With respect to environmental economics, the course consist of socially optimal pollution level, command-andcontrol regulation of pollution, pollution taxes, marketable permits, demand for environmental commodities, hedonic pricing methods, travel cost method, contingent valuation, and choice experiments. Regarding natural resources, the course covers topics on the optimal use of minerals (the Hotelling rule), the problem of open access in fishery, forest rotation models, and economics of forest conservation.

### Learning activities and teaching methods:

24 hours of lectures, 12 hours of exercises, and independent reading of study materials.

### Recommended optional programme components:

Principles of Economics and Mathematical Economics.

### **Recommended or required reading:**

Kolstad, C.D. (2000): Environmental Economics; Hartwick & Olewiler (1998): The Economics of Natural Resources Use (2<sup>nd</sup> ed.). Extra questions: Hanley, N., Shogren, J.F., White, B. (2007): Environmental Economics in Theory and Practice (2<sup>nd</sup> ed.) (The required sections of the books and the other material will be informed later.)

### Check availability from here.

### Assessment methods and criteria:

Lectures, literature examination, and exercises. The course record would qualify a substance either in intermediate studies or advanced studies. The students conducting advanced studies must answer extra questions in the exam and write an essay on a given topic.

### Grading:

1-5.

# Person responsible:

Professor Artti Juutinen.

## 721337S: Fiscal Policy, 6 op

Voimassaolo: 01.08.2011 -Opiskelumuoto: Advanced Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Puhakka Mikko Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä Opiskelumuoto: Advanced Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Marja-Liisa Halko Opintokohteen kielet: English

**ECTS Credits:** 6 ects. Language of instruction: Finnish. Timina: Not lectured during 2011-2012. Learning outcomes: The aim of this course is both to familiarize students with the principles of game theory and shortly introduce some results of the behavioral game theory. **Contents:** Basic concepts of game theory, Games of perfect information (normal and extensive form games. Nash equilibrium, mixed strategy equilibrium), Games of imperfect information (Bayesian games), Learning activities and teaching methods: To be announced later. Assessment methods and criteria: To be announced later. Grading: 1-5.

**Person responsible:** D.Soc.Sc. (Econ.) Marja-Liisa Halko.

# 721313P: History of Economic Thought, 5 op

Opiskelumuoto: Basic Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Svento, Rauli Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

ECTS Credits: 5 ects. Language of instruction: Finnish. Timing: Period D (2 <sup>nd</sup> year) Learning outcomes:

Students can identify the history of economics and its special fields, and are able to assess the development of economics from its dawn to modern times.

### Contents:

Pre-Adamite economics, Adam Smith, Malthus and Ricardo, classical monetary theory, marginalism, Marshallian economics, general equilibrium, the roots of macroeconomics, the roots of modern economics.

### Learning activities and teaching methods:

Students write an individual essay. The topic of the essay must be agreed upon with the instructors. The course starts with short introductory lectures given by the professors of Economics.

### **Recommended or required reading:**

Backhouse, R.E.: The Penguin History of Economics, 2002. Schumpeter, J. A. History of Economic Analysis: With a New Introduction, 1994. Other material announced during the lectures.

Check availability from <u>here.</u> Assessment methods and criteria: Individual essay. It is highly recommended that the course is taken before Seminar in Economics (721230A). **Grading:** 1-5. **Person responsible:** Professor of Economics. **Other information:** 

The number of students is limited.

# 721333S: Industrial Organization, 6 op

Opiskelumuoto: Advanced Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Maria Kopsakangas-Savolainen Opintokohteen kielet: English Voidaan suorittaa useasti: Kyllä

ECTS Credits: 6 ects. Language of instruction: Finnish or English. Timing: See the exam list. Learning outcomes: To deepen the students' knowledge of imperfect competition and the use of game theory in analysing it. Students should be familiar with non-linear pricing and the affect of asymmetric information on the optimal agreements. **Contents:** Oligopolistic competition, role of market entrance, non-linear pricing and optimal agreements in situations of asymmetric information. Learning activities and teaching methods: Independent reading of the textbooks. Recommended optional programme components: Intermediate studies in economics.

**Recommended or required reading:** Shy, Oz: Industrial Organization. Theory and Applications. MIT Press. 1995; other literature announced later.

Check availability from <u>here.</u> Assessment methods and criteria: Literature examination. Grading: 1-5. Person responsible: Senior researcher Maria Kopsakangas-Savolainen.

# 721215A: Intermediate Macroeconomics, 5 op

Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Marko Korhonen Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

ECTS Credits: 5 ects.

# Language of instruction:

Finnish.

**Timing:** Period C (2<sup>nd</sup> year spring).

# Learning outcomes:

After completing the course students are familiar with aggregate economic phenomena and variables, and their thorough measurement. They are able to build up simple macroeconomic models based on modern microeconomic approaches, enabling them to analyze for example the effects of economic policy actions on various markets. The students are also familiar with the shortcomings of the models in explaining the cycles in the aggregate economy, and are able to discuss and analyze the functioning of forecasting models for the overall economy before, during and after aggregate economic crises.

### Contents:

Microeconomic optimization behavior behind the macroeconomic models. Issues to be covered: measurement systems of aggregate economy; business cycle measurement; macro models based on consumer and firm behavior; economic growth, income disparity; savings, investment and government deficits; credit market imperfections; money and business cycles, new keynesian economics, inflation and banking, unemployment and central bank commitment.

### Learning activities and teaching methods:

36 hours of lectures, 15 hours of exercises and independent reading of the textbooks and articles.

# Recommended optional programme components:

Principles of Economics required and Intermediate Microeconomics recommended.

### Recommended or required reading:

Williamson, Stephen D.D.: Macroeconomics, 4 th ed., Pearson/Prentice Hall 2011; Blanchard, O.:

Macroeconomics, 4 <sup>th</sup> ed., Pearson/Prentice Hall, 2006; Burda, M. ja C. Wyplosz: Macroeconomics. A European Text. 4 <sup>th</sup> ed. Oxford University Press 2005.

Check availability from here.

# Assessment methods and criteria:

Final exam (lectures + exercises + books and other material). **Grading:** 1-5.

Person responsible:

Matti Koivuranta.

# 721216A: Intermediate Microeconomics, 5 op

**Opiskelumuoto:** Intermediate Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Riikka Nuutilainen

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

5 ects.

Language of instruction: Finnish. Timing: Period B (2 <sup>nd</sup> year autumn).

## Learning outcomes:

The student should understand and be able to apply the basic concepts and analytical tools of modern microeconomic theory.

Upon completing the required coursework, the student is able to identify the central ingredients of objective oriented decision making of households and firms and he/she is able to apply them in given decision making situations. The student can interpret and calculate the solution of an intertemporal decision problem. The student is able to identify various market types and knows what role they play in decision making. The student knows the basics of welfare economics. The student is able to formulate the decision making model under uncertainty and knows the role of uncertainty in decision making.

## Contents:

Basic concepts and applications of microeconomics.

Learning activities and teaching methods:

30 hours of lectures, 12 hours of exercises and independent reading of the textbooks.
Recommended optional programme components:
Principles of Economics.
Recommended or required reading:
Varian, H.: Intermediate Microeconomics, A Modern Approach, latest ed.

Check availability from <u>here.</u> Assessment methods and criteria: Lectures and exercises, final exam. Grading: 1-5. Person responsible: Professor Rauli Svento.

### 721317S: International Economics, 6 op

Opiskelumuoto: Advanced Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Marko Korhonen Opintokohteen kielet: English Voidaan suorittaa useasti: Kyllä

**ECTS Credits:** 6 ects. Language of instruction: Finnish. Timina: Periods C-D. Learning outcomes: To deepen the knowledge in functioning and development of international economy and the factors influencing them. **Contents:** International monetary theory and policy. Learning activities and teaching methods: Independent reading of the textbooks. **Recommended optional programme components:** Principles of International Economics; Intermediate Macroeconomics. Recommended or required reading: Obstfeld, M., Rogoff, K. Foundations of International Macroeconomics. Other material announced during the lectures.

Check availability from here. Assessment methods and criteria: Lectures and literature examination. Grading: 1-5. Person responsible: Marko Korhonen.

# 721060A: Introduction to Econometrics, 5 op

Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Marko Korhonen

**ECTS Credits:** 5 ECTS Language of instruction: Finnish Timing: Period A (3 rd year autumn). Learning outcomes: After completing the course students should be familiar with using of basic econometric models in the analysis of different economic phenomena. Contents: Introduction to the methodology of econometrics, basic probability concepts, essential features of linear regression and time series models, hypothesis testing and using of E-views software. Mode of delivery: Contact teaching. Learning activities and teaching methods: 28 hours of lectures, 14 hours of exercises and independent reading of the textbooks. Target group: Mandatory for bachelor students in following majors: Accounting, Economics, Finance. Prerequisites and co-requisites: Basic Methods in Statistics 1. Recommended optional programme components: None. **Recommended or required reading:** Stock James H., Watson Mark W.: Introduction to Econometrics, 2. edition. Other material announced during the lectures. Assessment methods and criteria: Lectures and a literature examination. Grading: 1-5. Person responsible: Marko Korhonen. Working life cooperation: None. Other information: The number of students is limited.

# 721242A: Labour Economics, 5 op

Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Tapani Kovalainen Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

ECTS Credits: 5 ects. Language of instruction: Finnish. Timing: Periods B-C. Learning outcomes: After completion of the course the student is able to specify the factors affecting supply and demand for labor at the competitive and noncompetitive labor market. Student can also describe the reasons for unemployment and the policy means against for unemployment. Contents: Labor supply, labor demand, role of trade unions in labor market, structural differences of economies and labor market.

Learning activities and teaching methods: Independent reading of the textbooks Recommended or required reading: Borjas, G.: Labor Economics, McGraw#Hill, 2010, 5/e, Euroopan rakenteelliset jäykkyydet, Valtioneuvoston kanslian julkaisusarja 2002/4.

Check availability from <u>here.</u> Assessment methods and criteria: Literature examination. Grading: 1-5. Person responsible: Reseacher Tapani Kovalainen.

# 721310S: Macroeconomic Analysis, 6 op

Opiskelumuoto: Advanced Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Puhakka Mikko Opintokohteen kielet: English Voidaan suorittaa useasti: Kyllä

ECTS Credits: 6 ects. Language of instruction: Finnish. Timing: Periods A-B (4 <sup>th</sup> year autumn).

### Learning outcomes:

Students have improved their skills to apply the models of modern macroeconomic analysis. The methods and models of this course are useful in other areas of economics and finance. The student has requisite skills to prepare an empirical or theoretical Master's thesis in macroeconomics.

### Contents:

Two-period models, introduction to dynamic programming, neoclassical growth theory, real business cycle theory, search theory.

### Learning activities and teaching methods:

40 hours of lectures, 18 hours of exercises and independent reading of the textbooks and articles announced during the course.

### Recommended optional programme components:

Intermediate Micro- and Macroeconomics, Mathematical Economics, Basic Econometrics.

### **Recommended or required reading:**

Puhakka, M.: Lecture Notes on Two-Period Models in Macroeconomics, Helsingin yliopisto. Kansantaloustieteen laitoksen tutkimuksia, No. 78:1998 (latest version); Minford, P. & D. Peel: Advanced Macroeconomics: A Primer, Edward Elgar, 2002. Sorensen, P.B & H.J. Whitta-Jacobsen; Introducing Advanced Macroeconomics: Growth and Business Cycles, McGraw-Hill, 2005, Romer, D.: Advanced Macroeconomics, McGraw-Hill, the newest edition; other material given during the course.

Check availability from here.

### Assessment methods and criteria:

2 mid-term exams / 1 final exam (lectures +exercises + literature and other material). **Grading:** 

1-5.

### Person responsible:

Professor Mikko Puhakka.

# 721330S: Master's Thesis, Economics, 30 op

Opiskelumuoto: Advanced Studies Laji: Diploma thesis Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opintokohteen kielet: Finnish

### **ECTS Credits:**

30 ects. Language of instruction: Finnish. Timing: Periods A-D. Learning outcomes:

The aim is to write a thesis which shows the student's ability to apply the tools and methods of economics to solve, and shed light on, a research problem. Seminar presentations will also develop student's ability to communicate the results of his/her written work to an audience.

### **Contents:**

Students prepare two presentations on his/her chosen topic and acts as an opponent to a presentation by a fellow student. The first presentation covers the subject matter of the thesis and presents the preliminary contents of the thesis. The second (and the main) presentation concentrates on the research results obtained in the thesis. Students are expected to be active participants in seminars.

Learning activities and teaching methods:

Seminars, the written Master's thesis, maturity exam.

**Recommended optional programme components:** 

A good knowledge of Economics, its tools and methods at the S (master) level.

### **Recommended or required reading:**

Thompson, W. (2001): A Guide for the Young Economist. The book is mainly written for the doctoral students, but it contains useful material also for students writing their Master's theses.

### Assessment methods and criteria:

Seminars.

Grading:

### 1-5.

Person responsible:

The Professors of Economics.

## 721220A: Mathematical Economics, 5 op

Opiskelumuoto: Intermediate Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Marko Korhonen, Juha Teirilä Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

ECTS Credits: 5 ects. Language of instruction: Finnish. Timing: Period A. Learning outcomes: After the course student can apply the mathematical methods that are necessary in intermediate and advanced economic studies. Contents: Linear algebra, calculus, optimization and dynamic analysis at elementary level. Learning activities and teaching methods: 30 hours of lectures, 20 hours of exercises and independent reading of the textbooks. **Recommended optional programme components:** Basic courses of mathematics. **Recommended or required reading:** Chiang A.C: Fundamental Methods of Mathematical Economics, 4 <sup>th</sup> ed., McGraw-Hill. New York, NY, 2005. Check availability from <u>here.</u> **Assessment methods and criteria:** Lectures and exercises, literature examination **Grading:** 1-5. **Person responsible:** Researcher Matti Koivuranta.

# 721320S: Microeconomic Analysis, 6 op

Opiskelumuoto: Advanced Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Svento, Rauli Opintokohteen kielet: English Voidaan suorittaa useasti: Kyllä

# ECTS Credits: 6 ects.

Language of instruction: Finnish. Timing: Periods C-D (3 <sup>rd</sup> year spring). Learning outcomes:

The student should learn rigorously the basic concepts and analytical tools of modern microeconomic theory. Furthermore she should be able to apply those tools in her thesis work.

Upon completing the required coursework the student is able to formulate and solve objective based optimization problems of households and firms. The student masters and knows how to interpret the general equilibrium results. The student is able to judge and interpret the role of uncertainty in decision making. He/she knows the basic theorems of welfare economics. The student is able to formulate and interpret the basic models of strategic behavior.

### **Contents:**

Microeconomic theory and applications. Learning activities and teaching methods: 48 hours of lectures, 24 hours of exercises and independent reading of the textbook. Recommended optional programme components: Intermediate microeconomics, mathematical economics. Recommended or required reading: Cowell, F. (2006): Microeconomics. Principles and Analysis and other material delivered in class.

Check availability from <u>here</u>. **Assessment methods and criteria:** Lectures and literature examination. **Grading:** 1-5. **Person responsible:** Professor Rauli Svento.

# 721211P: Principles of Economics, 10 op

Opiskelumuoto: Basic Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Marko Korhonen Opintokohteen kielet: Finnish

ECTS Credits: 10 ects. Language of instruction: Finnish. Timing: 1/2 Principles of Microeconomics Period A (1 <sup>st</sup> year autumn) 2/2 Principles of Macroeconomics Period C (1 <sup>st</sup> year spring) Learning outcomes:

### 1/2 Principles of Microeconomics

Students know the basic concepts of microeconomics and understand the meaning of scarcity and choices in economic analysis. Students understand the role markets in allocating resources and can identify the characteristics of different market forms. Students master the principles of risk analysis and understand the role of information in economic decision making.

### 2/2 Principles of Macroeconomics

Students know the basic concepts of macroeconomics, the principles of national income accounting and simple macroeconomic models which are used to describe and assess the operation of the aggregate economy. They understand the factors which affect economic growth and fluctuations and the role of fiscal policy. They also know how labour and financial markets operate.

### **Contents:**

### 1/2 Principles of Microeconomics

Basic tools of economic analysis, demand, supply and markets, consumer choice, firm supply, perfect and imperfect competition, risk and information, welfare analysis.

### 2/2 Principles of Macroeconomics

Price indexes, national income accounting, aggregate demand and supply, economic growth, business cycles, effects of fiscal policy, labor markets, financial markets.

### Learning activities and teaching methods:

### 1/2 Principles of Microeconomics

32h lectures, 15h review sessions with problem sets and individual reading of the literature.

### 2/2 Principles of Macroeconomics

32h lectures, 15h review sessions with problem sets and individual reading of the literature.

### Recommended or required reading:

### 1/2 Principles of Microeconomics

Begg, David et al.: Economics, 10. ed., London (2011) pages 1-356 and other material given in class.

### 2/2 Principles of Macroeconomics

Begg, David et al.: Economics, 10. ed., London (2011) pages 357-716 and other material given in class.

Check availability from <u>here.</u> Assessment methods and criteria: Exam. Grading: 1-5. Person responsible: Marko Korhonen Other information: The number of students is limited.

# 721236P: Principles of Environmental Economics, 5 op

Opiskelumuoto: Basic Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Juutinen, Artti Markus Tapani

### **ECTS Credits:**

5 ects.

### Language of instruction:

Finnish.

\*The course can be passed with a literature examination in English. The students wishing to do that should contact the teacher.

Timing:

Period C.

### Learning outcomes:

Students know and are able to verbally and graphically present the most crucial principles and themes of environmental and resource economics.

### **Contents:**

Optimal harvesting models of renewable and non-renewable natural resources, contradiction between economic growth and resource scarcity, policy instruments for controlling pollution abatement, and valuation methodology concerning non-market resources and environmental amenities.

### Learning activities and teaching methods:

Independent reading of the textbooks. Information on possible lectures will be given later.

### Recommended or required reading:

Tietenberg, T: Environmental Economics and Policy, 4th ed., 2004. Paavola, J.: Ympäristötalouden perusteet, 1996.

Check availability from here.

Assessment methods and criteria: Literature examination. Grading: 1-5.

Person responsible:

Assistant professor Artti Juutinen.

# 721218A: Principles of International Economics, 5 op

**Opiskelumuoto:** Intermediate Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Marko Korhonen

### Opintokohteen kielet: Finnish

Leikkaavuudet:

ay721218A Principles of International Economics (OPEN UNI) 5.0 op

ECTS Credits: 5 ects.

Language of instruction: Finnish.

**Timing:** Period C (2 <sup>nd</sup> year autumn).

### Learning outcomes:

The aim of this course is to introduce the functioning and development of international economy and the factors influencing to them. After the course the student is capable of explaining the impact of international trade on economy. In addition, student can compare different instruments of trade policy and their welfare effects. **Contents:** 

International trade theories and politics.

### Learning activities and teaching methods:

30 hours of lectures, 12 hours of exercises and independent reading of the textbooks.

### Recommended optional programme components:

#### **Recommended or required reading:**

Feenstra, R. ja A.M. Taylor (2011): International Economics, 2. edition; other material announced during the lectures.

Check availability from here.

### Assessment methods and criteria:

Lectures and exercises, literature examination.

Grading:

1-5.

Person responsible: Researcher Lauri Vilmi.

# 721217P: Public Sector Economics, 5 op

Voimassaolo: 01.08.2003 -Opiskelumuoto: Basic Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Svento, Rauli Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

### **ECTS Credits:**

5 ects.

### Language of instruction:

Finnish. \*The course can be passed with a literature examination in English. The students wishing to do that should contact the teacher.

Timing: Period C.

### Learning outcomes:

Students know and are able to verbally and graphically present the most crucial principles and themes of the function and economic analysis of public sector mostly from micro theoretical point of view.

Contents:

Market efficiency and failure, efficiency and equity, public goods, theory of public choice, public production and bureaucracy, externalities, tax incidence, taxation and efficiency, optimal taxation, and taxation of capital. **Learning activities and teaching methods:** 

Independent reading of the textbooks. Information on possible lectures will be given later.

### Recommended or required reading:

Stiglitz, J: Economics of the Public Sector, 2000, 3rd ed. chapters 3-9 and 17-20; Tuomala, M.: Julkistalous, 2009.

Check availability from <u>here.</u> **Assessment methods and criteria:** Literature examination. **Grading:** 1-5. **Person responsible:** Researcher Tapani Kovalainen. **Opiskelumuoto:** Intermediate Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Svento, Rauli, Puhakka Mikko

Opintokohteen kielet: Finnish

### Voidaan suorittaa useasti: Kyllä

ECTS Credits: 10 ects. Language of instruction: Finnish. Timing: Periods A-D (3 <sup>rd</sup> year)

# Learning outcomes:

The aim of this course is to provide the students an opportunity to practice independent and goal conscious research. During seminars each student will write and present a research paper on a chosen topic in economics in order to practice research and presentation skills.

### Contents:

Research skills, choosing a topic for research, writing a report, presenting and defending one's own report, evaluating and acting as an opponent to fellow researchers.

Learning activities and teaching methods:

Writing and presenting two seminar papers.

Recommended or required reading:

Material selected by the lecturer.

Assessment methods and criteria:

Bachelor's thesis in Economics. Active participation in seminars. Evaluating and acting as an opponent to fellow researchers.

#### Grading: 1-5.

Person responsible:

Lecturer in Economics.

# 721336S: Special Issue, 6 op

Opiskelumuoto: Advanced Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

### **ECTS Credits:**

Depends on the extent of the course. Language of instruction: Free.

Timing: Free.

Learning outcomes:

Contents: Varied. Learning activities and teaching methods: Varied. Assessment methods and criteria: For example 24 h lectures and a literature examination or an extended essay or a practical exercise. The topic of the lecture courses varies. Also courses taken in some other Finnish or foreign universities can be accepted as a completion of the course.

Grading: 1-5 Person responsible: Professors.

# 721339S: Statistical Foundations of Economitrics, 6 op

Opiskelumuoto: Advanced Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Rahiala Markku, Jussi Klemelä Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

ECTS Credits: 6 ects. Language of instruction: Finnish. Timing: to be announced later. Learning outcomes:

The course familiarizes students with applications of statistical models when inferences are made on economic phenomena. The principles of statistical inference on economic phenomena are the same as those of general statistical inference but there are some special issues that make the inference different in economics than in other application areas of statistics. After finishing the course, a student can apply both linear regression and nonlinear regression and a student is able to apply the generalized method of moments as well as the method of instrumental variables. A student can diagnose the validity of the assumptions of the linear regression model and tune his inferences accordingly.

### **Contents:**

The course starts with the study of the linear regression model, and covers asymptotic inference related to the linear regression model, tests of the parameter restrictions and tests of a structural change. Besides linear regression, also nonlinear regression and the generalized method of moments is covered, as well as inference based on instrumental variables and problems stemming from measurement errors.

Inference under heteroscedasticity and autocorrelated disturbances is included. The basic theory of time series analysis (cointegration and autoregressive conditional heteroscedasticity) and the basic theory of panel data is included.

Learning activities and teaching methods:

Besides lectures, there are voluntary exercises. Accomplishing exercises improves the grades.

Recommended optional programme components:

Matematiikan perusteet taloustieteilijöille 1 ja 2, Tilastotieteen perusmenetelmät 1

Recommended or required reading:

William H. Greene: Econometric Analysis (Prentice Hall)

Check availibility <u>here</u>. **Assessment methods and criteria:** Exam. **Grading:** 1-5. **Person responsible:** Jussi Klemelä Opiskelumuoto: Basic Studies Laji: Course Vastuuyksikkö: Oulu Business School Arvostelu: 1 - 5, pass, fail Opettajat: Riikka Nuutilainen Opintokohteen kielet: Finnish Voidaan suorittaa useasti: Kyllä

### **ECTS Credits:**

5 ects.

Language of instruction: English if necessary, otherwise Finnish. Timing: Period C.

### Learning outcomes:

Completing the course enables students to analytically examine the functioning of banking firms and markets where banks operate with customers, other banks, and the central bank. They are also able to compare the objectives, tools and mechanism of monetary policy to each other, and especially evaluate the effects of monetary policy actions on money markets and the real economy. After the course the students are able to understand the practical statements about the monetary policy issues and functioning of markets for money and interest yielding assets given in the public media and are able to scrutinize these issues with the theoretical tools given in the course.

### **Contents:**

Financial systems; the concepts of money and finance; determination of interest rates; monetary and financial institutions; supervision of banking; central banks; tools, aims and mechanisms of monetary policy; financial systems of euro zone and the monetary policy of the Federal Reserve and ECB; the connection between monetary policy and aggregate demand and supply.

### Mode of delivery:

Face-to-face teaching.

### Learning activities and teaching methods:

30 hours lectures (in English if necessary), and independent reading of the textbooks and other material distributed during the course.

### Target group:

Students with a major or minor in economics.

### Prerequisites and co-requisites:

Either Principles of Economics or Economics for Business are recommended as prior studies. **Recommended optional programme components:** 

### Recommended or required reading:

Mishkin, F.S.: The Economics of Money, Banking and Financial Markets, 9<sup>th</sup> ed. (2010) or 8<sup>th</sup> ed. (2007), Pearson-Addison Wesley; Howells, P. & K. Bain; The Economics of Money, Banking and Finance: A European Text, 4th ed, Prentice Hall, 2008; the appropriate parts from both of these; other material possibly announced during the lectures.

Check availability from here.

### Assessment methods and criteria:

Final exam (lectures + books + articles).

### Grading:

The course utilizes a numerical grading scale 1-5. In the numerical scale zero stands for fail.

Person responsible:

Professor Rauli Svento.

Working life cooperation:

Other information:

# 721237P: Urban and Regional Economics and Policy, 5 op

Opiskelumuoto: Basic Studies Laji: Course Vastuuyksikkö: Oulu Business School

# Arvostelu: 1 - 5, pass, fail Opettajat: Jaakko Simonen Opintokohteen kielet: Finnish Leikkaavuudet:

ay721237P Urban and Regional Economics and Policy (OPEN UNI) 5.0 op

### Voidaan suorittaa useasti: Kyllä

### **ECTS Credits:**

5 ects. Language of instruction: Finnish. Timing: Period C (1 <sup>st</sup> year). Learning outcomes:

The aim of the course is to familiarize students with understanding and analyzing the decisions made in micro level and their effects of to the macro level phenomena in cities and regions. Students will come to understand the broad range of relationships between economics and geography.

### Contents:

Essential features of classical models of location, growth theories and theoretical 'New Economics Geography' research. Agglomeration of economic activity and polarization of regional growth. Analysis of some essential features of spatial labour markets and interregional immigration flows. Regional output-input analysis. The nature of urban and regional economic policy.

Learning activities and teaching methods:

18 hours of lectures and independent studying

Recommended optional programme components:

Principles of Economics.

### Recommended or required reading:

McCann, P.: Urban and Regional Economics. New York: Oxford University Press.2001; Armstrong, H. & Taylor, J.: Regional Economics and Policy, 3<sup>rd</sup> ed. Oxford: Blackwell. 2000. (to the appropriate extent). Other material to be shared on lectures.

### Check availability from here.

### Assessment methods and criteria:

Lectures and a literature examination, voluntary home essay as part of the literature examination.

Grading:

### 1-5.

# Person responsible:

D.Sc. Jaakko Simonen, Postdoctoral Researcher, Academy of Finland.