Opasraportti

OBS - Master of Science, Economics (2018 - 2019)

This guide describes the contents of this master's programme. More information about studying at the business school can be found in the general study guide for Oulu Business School's master level students.

Master's Programme in Economics

The programme offers students a strong theoretical and methodological knowledge in Economics. The learning process in economics is based on a cumulative increase of understanding about the economic processes. Exercises and writing of term papers are included in lecture series. Reading of scientific international journals is an essential part of the studies.

General Learning Outcomes:

• Analytical thinking and problem solving – our graduates are able to solve business and/or economic problems and make business decisions.

• Disciplinary knowledge – our graduates demonstrate deep and coherent understanding of an academic field of study.

• Business knowledge - our graduates demonstrate deep understanding of their own profession, and are able to use, process and analyze economic and/or business information.

• Globally responsible leadership – our graduates are able to act as future generators of sustainable value for business and society.

• Communication skills - our graduates demonstrate professional oral and written communication knowledge and skills appropriate for business situations.

List of courses and teaching timetable are available in Economics degree diagram.

After completing the Master of Science in Economics, the student:

• can choose and apply economic theories

• can use and evaluate the newest scientific research and scientific tendencies in their own work

• can use necessary quantitative methods in independent research

• recognizes the traditional and new approaches in economics and can interpret their empirical applications

• can interpret the economic processes and causes and effects of economic relationships and compare the characteristics and applicability of economic models in different situation

• can write about and discuss economic phenomena applying economic thinking

• is able to do independent research work and write and present research reports showing expertise in some field of economics

Tutkintorakenteet

Master's Programme in Economics (M.Sc.)

Tutkintorakenteen tila: published

Lukuvuosi: 2018-19

Lukuvuoden alkamispäivämäärä: 01.08.2018

Major studies (120 - 130 op)

List of courses and teaching timetable is available in **Economics degree structure diagram.**

The following courses belong to the core curriculum of the Economics M.Sc. programme: 721345S Intermediate Microeconomics, 721346S Intermediate Macroeconomics, 721338S Mathematical Economics, 721060S Principles of Econometrics, 721342S Economic Theory I, 721310S Economic Theory II ja 721070S Globally Responsible Business. These courses (or courses with equivalent content offered by other universities) should be included in the student's study plan.

721336S Special Issue can be taken once, either in Module 2 or Module 3.

Finnish language studies (max 6 credits) can be taken by foreign degree students. These language studies can be included in Module 3, to replace one of the optional courses.

H631135: Master's programme in Economics, 120 - 130 op
- *Module 1*
  - 721345A: Intermediate Microeconomics, 6 op
  - 721346A: Intermediate Macroeconomics, 6 op
  - 721320S: Economic Theory I, 6 op
  - 721310S: Economic Theory II, 6 op
  - 721066S: Principles of Econometrics, 6 op
- *Module 2: Mandatory course.*
  - 721338S: Mathematical Economics, 6 op
- *Module 2. Choose four courses of the following:*
  - 721334S: Environmental Economics, 6 op
  - 721317S: International Macroeconomics, 6 op
  - 721344S: Urban and Regional Economics, 6 op
  - 721333S: Industrial Organization, 6 op
  - 721336S: Special Issue, 6 op
- *Module 3*
  - 721070S: Globally Responsible Business, 6 op
- *Module 3: Choose 4 of the following courses:*
  - 721954S: Financial Econometrics, 6 op
  - 721961S: Entrepreneurial Finance, 6 op
  - 721128S: Corporate Governance, 6 op
  - 721957S: Fundamentals of Finance, 6 op
  - 721559S: Venture Growth Strategies, 6 op
  - 488501S: Smart Grid I: Integrating renewable energy sources, 5 op
  - 488502S: Smart Grid II: Smart buildings/smart customers in the smart grid, 5 op
  - 488503S: Smart Grid III: Smart energy networks, 5 op
  - 721065S: Internship, 6 op
- *Module 4*
  - 721330S: Master's Thesis in Economics, 30 op

Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja -jaksot

721342S: Game Theory, 6 op

Opintojaksojen kuvaukset

Tutkintorakenteisiin kuuluvien opintokohteiden kuvaukset

H631135: Master's programme in Economics, 120 - 130 op

Voimassaolo: 01.08.2015 -
Opiskelumuoto: Advanced Studies
Laji: Study module
Vastuuyksikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Module 1

721345A: Intermediate Microeconomics, 6 op

Voimassaolo: 01.08.2017 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Mikko Vaaramo
Opintokohteen kielet: English
Leikkaavuudet:

721345S	Intermediate Microeconomics	6.0 op
721216A	Intermediate Microeconomics	5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:
6 credits / 160 hours of work
Language of instruction:
English
Timing:
Period 1A
Learning outcomes:
Upon complementing the course, the student will be able to explain the main features of consumer and firm behavior. The student recognizes different market environments and their effect on optimal decision making. In addition to this, the student will be able to use the concept of social welfare.

Contents:

The basic concepts of consumer and firm theory, market equilibrium, uncertainty and risk, intertemporal choice.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

36 lectures and 18 hours of exercises, exam 3 hours, preparing for the lectures, exercises and exam 103 hours.

Target group:

The first year Master's students

Recommended or required reading:

Varian, H.: Intermediate Microeconomics, A Modern Approach, 8th (or older) edition and other material delivered in class.

Assessment methods and criteria:

Written exam

Grading:

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

Person responsible:

Professor (acting) Jaakko Simonen, Doctoral student Hannu Huuki

Working life cooperation:

Students learn relevant skills to analyse the operation of markets and relevant competitive situations for firms and their decision making.

Other information:

The number of students is limited.

721346A: Intermediate Macroeconomics, 6 op

Voimassaolo: 01.08.2017 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Matti Koivuranta

Opintokohteen kielet: English

Leikkaavuudet:

721346S	Intermediate Macroeconomics	6.0 op
721215A	Intermediate Macroeconomics	5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work

Language of instruction:

English

Timing:

Period 1B.

Learning outcomes:

After completing the course the student is familiar with aggregate economic phenomena and their thorough measurement. He/she is able to use simple macroeconomic models to understand economic issues such as growth and business cycles. The student is also able to analyze the effects of different economic policies with simple economic models.

Contents:

The course covers national income accounting, economic growth, business cycles, determinants of inflation and unemployment and basic concepts of open economy macroeconomics. Additional topics include the effects of monetary and fiscal policy.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

36 lectures and 18 hours of exercises, exam 3 hours, preparing for the lectures, exercises and exam 103 hours.

Target group:

First year Master's students

Recommended or required reading:

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

Assessment methods and criteria:

Written exam.

Grading:

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

Person responsible:

Professor Mikko Puhakka, Doctoral student Matti Koivuranta.

Working life cooperation:

Students learn relevant skills to analyse the operation of aggregate economy especially from the point of firms.

Other information:

The number of students is limited.

721320S: Economic Theory I, 6 op

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

ECTS Credits:

6 credits / 160 hours of work

Language of instruction:

English

Timing:

Period 1C

Learning outcomes:

The student should learn rigorously the basic concepts and analytical tools of modern microeconomic theory. He/she should be able to apply those tools in the 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. Students are also able to express their ideas analytically and effectively in written form.

Contents:

Constrained optimization problems of economic agents, market analysis, general equilibrium analysis, welfare economics, decision making under uncertainty, information economics.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

36 hours of lectures, 18 hours of exercises, exam 3 hours, preparing for the lectures, exercises and exam 103 hours.

Target group:

The first year Master's students

Prerequisites and co-requisites:

Intermediate micro and macroeconomics, mathematical economics.

Recommended or required reading:

Cowell, F. (2006): Microeconomics. Principles and Analysis; Gravelle, H. & Rees, R. (2004): Microeconomics, and required readings from a list of readings for the course. Active following of current topics e.g. from the Economist or Financial Times.

Assessment methods and criteria:

Written exam and a short term paper

Grading:

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

Person responsible:

Professor (acting) Jaakko Simonen

Working life cooperation:

Students learn relevant analytical and quantitative skills to analyse the operation of markets and relevant competitive situations for firms and their decision making. The required short term paper enhances further their ability to write concisely about the functioning of markets.

Other information:

The number of students is limited.

721310S: Economic Theory II, 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 credits / 160 hours of work

Language of instruction:

English

Timing:

Period 2B.

Learning outcomes:

Student is able to apply dynamic models in the analysis of aggregate economy. He/she can also use these models in empirical analyses, and is well prepared to write a Master's thesis. Students are also able to express their ideas analytically and effectively in written form.

Contents:

A review of ISLM and ADAS models.Two-period models, introduction to dynamic programming,economic growth, new keynesian macro, fiscal policy, search theory.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

36 lectures and 18 hours of exercises, exam 3 hours, preparing for the lectures, exercises and exam 103 hours.

Target group:

The second year Master's students.

Prerequisites and co-requisites:

Intermediate micro and macroeconomics, mathematical economics, and preferably Economic Theory I.

Recommended optional programme components:

Active following of current topics e.g. from the Economist or Financial Times.

Recommended or required reading:

P. Minford and D. Peel, Advanced Macroeconomics. Edvard Elgar 2002. M. Puhakka, "Lecture Notes on Two-Period Models in Macroeconomics" (2005), and required readings from a list of readings for the course.

Assessment methods and criteria:

Written exam and a concise term paper.

Grading:

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

Person responsible:

Professor Mikko Puhakka

Working life cooperation:

Students learn relevant analytical and quantitative skills to prepare useful (for decision makers) reports on the state of the economy, say at the levels required in central banks and ministries of finance. The required short term paper enhances further their ability to write concisely about the state of the economy.

Other information:

The number of students is limited.

721066S: Principles of Econometrics, 6 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Sanna Huikari

Opintokohteen kielet: English

Leikkaavuudet:

721060A	Introduction to Econometrics	5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work

Language of instruction:

English

Timing:

Period 1B.

Learning outcomes:

After completing the course the student is familiar with the standard methods used in empirical analyses and with regression analysis relevant for analyzing economic data. In addition, the student can interpret

and evaluate the outcomes of empirical analysis. Furthermore, he/she has basic knowledge of using statistical software in econometric analyses.

Contents:

Statistical basics of econometrics and the use of basic econometric models in the analysis of different economic phenomena. The main focus is on dealing with the basic regression models adapted to cross-section data and familiarizing with the use of statistical software.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

36 hours of lectures, 18 hours of exercises, exam 3 hours, preparing for the lectures, exercises and exam 103 hours.

Target group:

First year Master's students in Economics, Accounting and Finance.

Prerequisites and co-requisites:

It is highly recommended that the student has already passed the course 806116P Basic Methods in Statistics 1 (in Finnish: 806116P Tilastotiedettä kauppatieteilijöille, previously: 806109P Tilastotieteen perusmenetelmät 1) or has elementary knowledge of statistics and probability theory.

Recommended optional programme components:

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Recommended or required reading:

Stock James H., Watson Mark W.: Introduction to Econometrics, 2. or 3. edition. Other material announced during the lectures.

Assessment methods and criteria:

Written exam.

Grading:

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

Person responsible:

Professor Rauli Svento, Doctoral student Sanna Huikari

Working life cooperation:

In working life, when the skills of analyzing data are required, the skills learned during the course help a student in summarizing and interpreting the results of empirical studies. He/she can compare the results of various empirical studies and evaluate those critically. Student is able to independently carry out a small-scale econometric study by putting in practice the econometric methods (e.g. linear regression model and various statistical tests) discussed during the course.

Other information:

The number of students is limited.

Module 2: Mandatory course.

721338S: Mathematical Economics, 6 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Matti Koivuranta
Opintokohteen kielet: English
Leikkaavuudet:

721220A	Mathematical Economics	5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work.

Language of instruction:

English.

Timing:

Period 1A.

Learning outcomes:

Upon completion of the course, the student will be able to apply mathematical methods needed in the courses in the Economic Theory module.

Contents:

The course introduces frequently used mathematical methods in the economic literature. Applicable parts from linear algebra, differential and integral calculus, mathematical optimization and dynamic analysis are covered.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

36 hours of lectures, 18 hours of exercises, exam 3 hours, preparing for the lectures, exercises and exam 103 hours.

Target group:

First year Master's students in Economics and Finance.

Recommended or required reading:

Chiang A.C: Fundamental Methods of Mathematical Economics, 4th edition, McGraw-Hill. New York, NY, 2005.

Assessment methods and criteria:

Written exam. Mandatory exercises.

Grading:

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

Person responsible:

Professor Mikko Puhakka, Doctoral student Matti Koivuranta.

Working life cooperation:

Students learn relevant mathematics and applications to analyse various types of economic situations.

Other information:

The number of students is limited.

Module 2. Choose four courses of the following:

721334S: Environmental Economics, 6 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Juutinen, Artti Markus Tapani
Opintokohteen kielet: English
Leikkaavuudet:

721248S	Environmental and Resource Economics	6.0 op
721248A	Environmental Economics	5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work.

Language of instruction:

English

Timing:

Period 1D

Learning outcomes:

Student is able to graphically and mathematically describe the socially optimal level of pollution and define the efficiency conditions of the crucial policy instruments of pollution control. Moreover, student identifies comparative merits of different policy instruments. He/she can apply the most important methods for monetary valuation of environmental benefits and empirically examine the demand of environmental commodities. In addition, student is able to formally present the models describing optimal use of natural resources and apply these models in practical decision making. Students are also able to act professionally in teams, express their ideas analytically and effectively both in written and oral form.

Contents:

Sustainability problem, externalities, socially optimal pollution level, command-and-control 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, and forest rotation models.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

24 hours of lectures, 9 hours of exercises, 50 hours of individual homework, and independent reading of study materials, preparing for the lectures and exercises 77 hours.

Target group:

First year Master's students.

Prerequisites and co-requisites:

Recommended optional programme components:

Recommended or required reading:

Perman, Ma, Common, Maddison & Mcgilvray (2011). Natural Resource and Environmental Economics (4th Ed or newer). (The required sections of the books and the other material will be informed later.)

Assessment methods and criteria:

Lecture specific problem questions, final essay and exercises.

Grading:

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

Person responsible:

Professor Artti Juutinen and Doctoral student Enni Ruokamo.

Working life cooperation:

Students improve their skills regarding the use of software that are widely applied in working life (MsExcel, MsWord, MsPowerPoint). Students also improve their presentation and co-operation skills.

721317S: International Macroeconomics, 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 credits / 160 hours of work

Language of instruction:

English

Timing:

Period 1C.

Learning outcomes:

Student is familiar with topics in international macroeconomics as well as to theories trying to account for the basic stylized facts in the field. . Students are also able to express their ideas analytically and effectively in written and oral form.

Contents:

Advanced theoretical and empirical analysis of contemporary international macroeconomic policy issues in both industrialized and developing economies. The topics covered include current account balance, dynamics of small open economy, real exchange rate and the terms of trade, uncertainty and international financial markets. Also, the issues of monetary union will be covered.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

12 hours of lectures, 18 hours of student presentations, exam 3 hours, preparing for the lectures, student presentations and exam 127 hours.

Target group:

First year Master's students.

Prerequisites and co-requisites:

Economic Theory I and Principles of Econometrics.

Recommended optional programme components:

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Recommended or required reading:

Feenstra and Taylor (2014): International Economics, part 6, 7 and 8;
De Grauwe (2014): Economics of Monetary Union.

Assessment methods and criteria:

Written exam and student presentations

Grading:

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

Person responsible:

University lecturer Marko Korhonen

Working life cooperation:

The world economy impacts global business in increasingly significant ways. After the course students learn what are the impacts of international macroeconomics and international finance on the global business.

Other information:

The number of students is limited.

721344S: Urban and Regional Economics, 6 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Jaakko Simonen

Opintokohteen kielet: English

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work

Language of instruction:

English

Timing:

Period 2A.

Learning outcomes:

Student is familiar with how firms' and people's decisions on a micro-level affect the macro-level phenomena in cities and regions. He/she will understand the broad range of relationships between economics and geography. Students are also able to express their ideas analytically and effectively in written form.

Contents:

Agglomeration of economic activities, regional input-output analysis, analysis of some essential features of spatial labor markets and interregional immigration flows. Current topics of urban and regional economic development and policy.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

24 hours of lectures, 12 hours for computer lab exercises, preparing for the lectures, exercises and individual/group assignments 124 hours.

Target group:

Second year master's students.

Recommended or required reading:

McCann, P.: Urban and Regional Economics. New York: Oxford University Press.2001 or 2013; Armstrong, H. & Taylor, J.: Regional Economics and Policy, 3 rd ed. Oxford: Blackwell. 2000.
Other material to be shared on lectures.

Assessment methods and criteria:

Assessment will be based on two individual written reports/essays and two computer lab exercises and written reports conducted either independently or in a small group.

Grading:

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

Person responsible:

Professor (acting) Jaakko Simonen

Working life cooperation:

Student understands how the activities of people and firms affect the evolution of regional economy. Student is also familiar with the background of current regional economic phenomena.

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 credits/160 hours of work

Language of instruction:

English

Timing:

2A

Learning outcomes:

Upon successful completion of this course, student is 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. He/she should be able to understand the market conditions where regulation is needed and analyze different form of regulation methods. He/she should be also able to use 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. Student understands the effect of asymmetric information on the optimal agreements. Students are also able to express their ideas analytically and effectively in written form.

Contents:

Functioning of imperfect competition, monopoly, cartel, price discrimination, non-linear pricing, product differentiation, principles of game theory, strategic behavior, role of market entrance , innovations and research and development, optimal agreements in situations of asymmetric information.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

24 hours of lectures, 12 hours for home assignments (including problem sets and essay), exam 3 hours, preparing for the lectures, exercises and exam 121 hours.

Target group:

Second year Master's students

Prerequisites and co-requisites:

Intermediated Microeconomics, Mathematical economics

Recommended optional programme components:

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Recommended or required reading:

Cabral, L.M.B. Introduction to Industrial Organization. MIT Press. 2000;
Shy, Oz: Industrial Organization. Theory and Applications. MIT Press. 1995;
Kopsakangas-Savolainen and Svento, Modern Energy Markets. Springer 2012;
other literature announced later.

Assessment methods and criteria:

Home assignments, written examination.

Grading:

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

Person responsible:

Professor Maria Kopsakangas-Savolainen

Working life cooperation:

Students learn relevant analytical and quantitative skills to analyse different types of competitive situations in markets.

Other information:

The number of students is limited.

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:

6 credits / 160 hours of work

Language of instruction:

Varies depending on the way of completion.

Timing:

Free.

Learning outcomes:

If taken as an individual research assignment, upon completion the students demonstrate knowledge of the theories, concepts, frameworks and empirical findings of chosen discipline and they are able to identify and solve relevant problems, and make critical judgments based on them.

Contents:

Varies depending on individually agreed on assignment.

Mode of delivery:

It may be, but is not limited to (1) An advanced level course passed in another university having different contents than those courses offered in the student's program, but otherwise fitting the structure of the studies. If necessary the course may be supplemented with additional tasks. (2) An essay/learning diary of about 20 pages, the requirements of which are agreed on in advance with the person responsible of the course within the major subject. (3) Ad hoc –course organized by OBS (4) A discipline-based business development case or other relevant project (e.g. Demola/Business Kitchen).

Learning activities and teaching methods:

Varies on the basis of individually agreed on assignment.

Target group:

Students of OBS's Master's Programs.

Prerequisites and co-requisites:

No

Recommended optional programme components:

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Recommended or required reading:

To be agreed on with the person responsible of the course within the major subject

Assessment methods and criteria:

Assessment is based on the learning outcomes of the course and the Master's program. Method varies depending on the individually agreed on assignment.

Grading:

The course can utilize a numerical grading scale 1-5 or be evaluated as pass/fail. In the numerical scale zero stands for fail.

Person responsible:

To be named by major subjects

Working life cooperation:

Depends on the individually agreed on assignment.

Other information:

The number of students is limited.

Module 3

721070S: Globally Responsible Business, 6 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Anne Keränen

Opintokohteen kielet: English

Leikkaavuudet:

ay721070S Globally Responsible Business (OPEN UNI) 6.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work

Language of instruction:

English

Timing:

Period C.

Learning outcomes:

Upon completion of the course, students are able to demonstrate detailed knowledge of responsible behaviors in global and local business from the viewpoint of their major discipline. The students are able to work in multidisciplinary groups and create a collective approach for uniting economic with socially and environmentally responsible bottom lines within a global business context. Students are also able to express their ideas in written and oral form and communicate them online.

Contents:

The course deals with the diversity of contemporary business issues related to sustainability and responsibility when operating in the global marketplace. Based on the triple-bottom-line concept students are introduced to theoretical and practical perspectives from the disciplines of accounting, economics, finance, management/international business and marketing. Students learn to detect, analyze, and create different approaches of how to globally and locally achieve social and environmental goals in addition to economic objectives of a business.

Mode of delivery:

Online study methods.

Learning activities and teaching methods:

Independent study of the given material 70h, online discussions and groupwork 70h, and conducting individual assignments and learning reports 20h.

Target group:

Students from all OBS Master’s programmes.

Prerequisites and co-requisites:

30 ects (5 Master level courses).

Recommended optional programme components:

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Recommended or required reading:

Course Book (to be announced later), articles and materials provided by the course instructors.

Assessment methods and criteria:

Individual contributions (reports, video, online exam) count for 60% and group contributions (blogpost, case report) 40%.

Grading:

The course utilizes a numerical grading scale 1-5. The course consist of five different parts and students acquire a grade by passing the five different parts in numerical order.

Person responsible:

Anne Keränen, Jan Hermes and Prof. Pauliina Ulkuniemi.

Working life cooperation:

The course includes global and local real life case examples and analyses. Course learning methods advance modern communication and interaction methods relevant in work life. Students gain abilities to perceive and develop responsibility in business.

Other information:

The course is available and obligatory for OBS Master level students.

Module 3: Choose 4 of the following courses:

721954S: Financial Econometrics, 6 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: English

ECTS Credits:

6 ECTS credits / 160 hours of work.

Language of instruction:

English.

Timing:

Period C.

Learning outcomes:

Upon completion of the course, the student is able to conduct empirical analyses of financial data using econometric methods. Students are also able to act professionally in teams.

Contents:

Properties of financial data, linear regression models, maximum likelihood estimation, risk and volatility (multivariate GARCH), factor models (principal components and Kalman-filters), option markets (estimating and testing Black-Scholes and its extensions, panel data models.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

36 hours lectures and 14 hours of optional tutorials, tutorial assignments using open-source R, and a group project. Independent studying and group work 124 hours.

Target group:

Major students in finance. Elective for major students in economics. The course is also available for the students, who need to complete their 60 ECTS credits minor in finance.

Prerequisites and co-requisites:

Prerequisites and co-requisites: 721066S Principles of Econometrics, 721958S Empirical Research in Finance I (recommended), Empirical Research in Finance II (recommended)

Recommended optional programme components:

-

Recommended or required reading:

Hurn, Martin, Philips and Young: Financial Econometric Modelling (forthcoming), lecture notes and the material provided by instructor.

Assessment methods and criteria:

Midterm test (10%), tutorials (20% bonus), group work (20%) and final exam (70%).

Grading:

1-5.

Person responsible:

Hannu Kahra

Working life cooperation:

The course introduces the main econometric techniques that are frequently applied in both academic research and financial services industry.

Other information:

The number of students is limited.

721961S: Entrepreneurial Finance, 6 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Andrew Conlin

Opintokohteen kielet: English

Leikkaavuudet:

721371A Entrepreneurial Finance 5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work

Language of instruction:

English

Timing:

Period B

Learning outcomes:

Upon completion of the course, the student will understand the issues faced when financing entrepreneurial ventures. The student will also understand the interaction between the strategy and the financing of a start-up venture. The course will focus on the decisions from the entrepreneur’s point of view, while also exposing students to the financier’s point of view.

Contents:

Entrepreneur vs self-employed, the amount, timing, and source of funding, the structure of the funding, agency issues.

Learning activities and teaching methods:

36 hours of lectures and 124 hours of independent studying.

Target group:

Major students in finance. The course is also available for the students, who need to complete their 60 ECTS credits minor in finance.

Prerequisites and co-requisites:

-

Recommended optional programme components:

-

Recommended or required reading:

Materials provided by instructors.

Assessment methods and criteria:

Final exam

Grading:

1-5

Person responsible:

Juha Joenväärä

Working life cooperation:

The understanding of the special issues facing entrepreneurial ventures is essential for the development of successful financing practices of small and medium-sized enterprises.

Other information:

The number of students is limited.

721128S: Corporate Governance, 6 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Kallunki Juha-Pekka

Opintokohteen kielet: English

ECTS Credits:

6 ECTS credits.

Language of instruction:

English.

Timing:

Period B. It is recommended to complete the course during the Master's programme's 1 st Fall semester.

Learning outcomes:

After passing the course, students are familiar with the agency theory and its various research and practical implications. They are also familiar with the elements of the governance system of the firm, are able to recognize the warning signs of the potential collapse of the governance system, can assess the features of different executive incentive system, and are able to recognize situations of likely accounting fraud. Students can act responsibly in difficult situations of being asked to act dishonestly. Finally, students are familiar with the practices of societally and environmentally sustainable business conduct and able to act professionally in teams, express their ideas analytically and effectively both in written and oral form.

Contents:

Lectures, case discussions and presentations, and videos simulating governance-related decisions.

Mode of delivery:

Face-to-face –teaching, case presentations and discussions.

Learning activities and teaching methods:

36 h of lectures, 6 h of class discussions/student, case works 50 h, self-study 70 h.

Target group:

Major students.

Prerequisites and co-requisites:

Not applicable.

Recommended optional programme components:

Not applicable.

Recommended or required reading:

Kenneth Kim, John Nofsinger and Derek Mohr (2010), 'Corporate Governance', 3rd Edition, Pearson Prentice Hall; lecture notes; research articles; and cases.

Assessment methods and criteria:

Exam and case works.

Grading:

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

Person responsible:

Professor Juha-Pekka Kallunki.

Working life cooperation:

Lecturer of Practice Pertti Huuskonen teaches a part of the course. Visiting Professor Henrik Nilsson (Stockholm School of Economics) teaches another part of the course. The course focuses heavily on working life skills on how students should react in challenging corporate governance situations in organizations.

Other information:

The number of students is limited.

721957S: Fundamentals of Finance, 6 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Perttunen, Jukka Olavi

Opintokohteen kielet: English

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work

Language of instruction:

English

Timing:

Period A

Learning outcomes:

Upon completion of the course, the student understands the basic concepts of finance and is capable of applying them in financial problem solving. Students are also able to express their ideas analytically and effectively in written form.

Contents:

Interest rates and discounting, asset pricing, fixed-income securities, derivative securities, portfolio performance evaluation, corporate cash flows, firm valuation.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

36 hours lectures and exercises, including two mandatory intermediate exams. Independent studying 124 hours.

Target group:

Major students in finance. Elective for major students in accounting. The course is also available for the students, who need to complete their 25/60 ECTS credits minor in finance.

Prerequisites and co-requisites:

-

Recommended optional programme components:

-

Recommended or required reading:

Lecture notes.

Assessment methods and criteria:

During the course, there are two mandatory intermediate exams. In addition, the student has to complete a course project which includes a written report with a strict deadline. The final grade is assigned on the basis of the intermediate exams (50%) and the course project (50%).

Grading:

1-5

Person responsible:

Jukka Perttunen

Working life cooperation:

The course introduces the basic concepts and approaches which are necessary for any career in financial industry.

Other information:

The number of students is limited.

721559S: Venture Growth Strategies, 6 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Sakari Sipola

Opintokohteen kielet: English

Leikkaavuudet:

ay721559S Venture Growth Strategies (OPEN UNI) 6.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 credits / 160 hours of work

Language of instruction:

English.

Timing:

Period A. It is recommended to complete the course at the 1st autumn semester of the Master's program.

Learning outcomes:

After the course, the student is able to tackle business development challenges both within existing companies and new firms. The student can exploit a series of frameworks and tools for (1) building market understanding and a match between the developed offering and market needs, and (2) organizing the needed resources and competencies for scaling the business at international markets. Students are also able to express their ideas analytically and effectively both in written and oral form.

Contents:

The course focuses on building and managing new high-growth ventures by applying the most recent advancements in the field. Practically orientated concepts like lean startup, customer development, design thinking and business model innovation are covered together with different forms of entrepreneurial finance such as angel investing and venture capital.

Mode of delivery:

Face-to-face teaching, online activity.

Learning activities and teaching methods:

Blended teaching method of 36 hours of lectures and online material with reflection (72 h), reading the course literature (50 h), writing the report (38 h). The responsible person will provide further details in the first session.

Target group:

Students of the Master's program in International Business Management

Prerequisites and co-requisites:

Basic and intermediate studies in international business management

Recommended optional programme components:

No

Recommended or required reading:

Article collection and online material.

Assessment methods and criteria:

Assessment will be based on individual written report and lecture activity.

Grading:

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

Person responsible:

Sakari Sipola

Working life cooperation:

Visiting industry experts provide real-life cases and examples.

Other information:

The number of students is limited.

488501S: Smart Grid I: Integrating renewable energy sources, 5 op

Voimassaolo: 01.08.2016 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Field of Process and Environmental Engineering
Arvostelu: 1 - 5, pass, fail
Opettajat: Eva Pongracz
Opintokohteen kielet: English

ECTS Credits:

5 cr/150 hours of work

Language of instruction:

English

Timing:

Period 2

Learning outcomes:

The student is able to explain the concept of smart grids, the evolution of smart grids from electricity power grids, the information technology requirements as well as the economic, environmental and social implications of smart grids. The student will know the expectations from smart grids and is able to outline the future perspectives of smart grid-based energy systems.

Contents:

Multidisciplinary course, offered in cooperation of the Faculty of Technology (Energy and Environmental Engineering Research Unit - EEE), Oulu Business School (OBS, Department of Economics) and the Faculty of Information Technology and Electrical Engineering (Centre of Wireless Communication - CWC). After an introductory presentation on the requirements, the background is set on the energy and environmental crisis, the co-evolution of energy and information systems and outlining the transition to a smarter system. Further, lectures on smart grids will be provided from an electrical engineering and information technology view on the evolution of electricity power grids, power generation transmission and distribution; distributed generation and futures of smart grids. From an environmental engineering point of view, lectures will be delivered on energy systems fundamentals, climate goals and decarbonization, as well as on the sustainability of smart grids will in particular the environmental and social impacts of smart grids. From economics points of view, lectures will be given on the liberalization and deregulation of the electricity market, electricity pricing, transmission and distribution as natural monopolies, smart grids and new market mechanisms, and the economic impacts of large scale integration of renewable energy sources. Participation on lectures is not compulsory, but students are to answer to problem questions. As an exercise, students will be given a group work assignment that they are to work with throughout the

duration of the course with the help of mentors. The subjects of the exercise is achieving climate goals and the future of energy systems.

Mode of delivery:

Implemented as face-to-face teaching and student seminar. The course largely relies on participatory learning, therefore, there are compulsory participation requirements.

Learning activities and teaching methods:

Lectures 32 h / student presentations 8 h, Guided group work: 8 h, individual homework 60 h/group work 42 h.

Target group:

Master's students of environmental engineering, especially of energy and environmental engineering orientation; Master's students in economics; Master's students of Electrical Engineering and Information Technology.

Prerequisites and co-requisites:

For Environmental Engineering students, admission to the Master's programme, for which minimally a former bachelor's degree is required. For other students the Bachelor level studies. A minimum of 10 ECTS worth of prior energy studies, bachelor level studies are acceptable. For example at Oulu: Sähkö- ja magnetismioppi, Production and use of energy, Fundamentals of nuclear energy.

Recommended or required reading:

Will be provided during the course by the lecturers.
Chen-Ching Liu, Stephern McArthur and Seung-Jae Lee (eds.)(2016) Smart Grids handbook, 3 volume set, and Stephen F. Bush (2014): Smart Grid: Communication-Enabled Intelligence for the Electric Power Grid. http://onlinelibrary.wiley.com/book/10.1002/9781118820216.

Assessment methods and criteria:

Answering problem questions and group exercise. Compulsory requirements are completing learning portfolio, answering of at least 75% of problem questions, participation in 50% of intermediate presentations and compulsory participation in the final presentation.

Grading:

The course evaluation will be based on an on-line learning portfolio and performance in the exercise participation and exercise report. The course unit utilizes a numerical grading scale 1-5. In the numerical scale, zero stands for a fail.

Person responsible:

Docent Eva Pongrácz (EEE) and Prof. Maria Kopsakangas-Savolainen (OBS). Other lecturers: EEE: Dr. Antonio Caló, Dr. Jean-Nicolas Louis; OBS: Prof. Rauli Svento, Mari Heikkinen, Hannu Huuki, Santtu Karhinen, Enni Ruokamo; CWC: Dr. Pedro Nardelli.

Other information:

The number of students is limited. This course is a 5 credit course for engineering students, but economics students gain overall 6 credits by doing a mandatory extra assignment which corresponds to 1 credit.

488502S: Smart Grid II: Smart buildings/smart customers in the smart grid, 5 op

Voimassaolo: 28.11.2016 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Field of Process and Environmental Engineering

Arvostelu: 1 - 5, pass, fail

Opettajat: Eva Pongracz

Opintokohteen kielet: English

ECTS Credits:

5 cr/150 hours of work

Language of instruction:

English

Timing:

Period 3

Learning outcomes:

The student is able to explain the concept of smart houses, and is able to demonstrate the optimization of smart house functions for energy efficiency, decarbonization and cost savings. Further, the student is familiar with the concepts and the technologies of smart house automation as well as other technologies used in smart houses such as smart appliances, smart metering and energy storage. The student will also understand the new role of consumers in the smart grid environment, their changing roles as well as current and future models of energy services. The student will also understand the risks of smart houses in terms of cyber security, data privacy and management. In addition, the student is able to outline the future perspectives of smart houses and smart consumers as part of the smart city framework and aiming toward eco-cities of the future.

Contents:

Multidisciplinary course, offered in cooperation of the Faculty of Technology (Energy and Environmental Engineering Research Unit - EEE), Oulu Business School (OBS, Department of Economics) and the Faculty of Information Technology and Electrical Engineering (Centre of Wireless Communication - CWC). After an introductory presentation on the course requirements, the basics are set in terms of defining smart houses as part of smart grids. Further the complementary roles of smart houses for energy efficiency, costs saving and decarbonization is explained. The key technologies of smart houses will be explained and demonstrated, including company presentations on existing commercial technologies and service models. In addition, the new role of consumers as prosumers and service users will be explained and demonstrated. There will be no exam, however, the students are to answer to problem questions related to the lectures and complete the exercises. There will be 4 exercises, concentrating on the 4 key themes of the course: smart house functions, smart house technologies, smart consumers, and energy services. Part of the exercises will be done as individual work that will be reported and some will be performed as group work. There will also be in-class guided exercises.

Mode of delivery:

Implemented as face-to-face teaching, visiting lectures and student presentations. The course largely relies on participatory learning, therefore, there are compulsory participation requirements.

Learning activities and teaching methods:

Lectures 28 h, student presentations 4 h, guided exercise work 24 h, individual work 50 h, group work 38 h.

Target group:

Master's students of environmental engineering, especially of energy and environmental engineering orientation; Master's students in economics; Master's students of Electrical Engineering and Information Technology. Doctoral students are also welcome to participate.

Prerequisites and co-requisites:

Completing Smart grids 1 course is preferred.

Recommended or required reading:

Will be provided during the course by the lecturers.
Chen-Ching Liu, Stephern McArthur and Seung-Jae Lee (eds.)(2016) Smart Grids handbook, 3 volume set, and Stephen F. Bush (2014): Smart Grid: Communication-Enabled Intelligence for the Electric Power Grid. http://onlinelibrary.wiley.com/book/10.1002/9781118820216.

Assessment methods and criteria:

Answering problem questions, individual and group exercise. Compulsory requirements are completing learning portfolio, answering of at least 75% of problem questions, compulsory participation in the in-course exercises and participation in the student presentation.

Grading:

The course evaluation will be based on an on-line learning portfolio, exercise performance and exercise report. The course unit utilizes a numerical grading scale 1-5. In the numerical scale, zero stands for a fail.

Person responsible:

Prof. Eva Pongrácz (EEE) and Prof. Maria Kopsakangas-Savolainen (OBS). Other lecturers: EEE: Dr. Jean-Nicolas Louis; Dr. Antonio Caló, OBS: Prof. Rauli Svento, Santtu Karhinen...; CWC: Dr. Pedro Nardelli, Dr. Jussi Haapola, MSc. Florian Kühlenz.

Other information:

The number of students is limited. This course is a 5 credit course for engineering students, but economics students gain overall 6 credits by doing a mandatory extra assignment which corresponds to 1 credit.

488503S: Smart Grid III: Smart energy networks, 5 op

Voimassaolo: 28.11.2016 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Field of Process and Environmental Engineering

Arvostelu: 1 - 5, pass, fail

Opettajat: Eva Pongracz

Opintokohteen kielet: English

ECTS Credits:

5 cr/135 hours of work

Language of instruction:

English

Timing:

Spring, period 4

Learning outcomes:

The student is able to explain the concept of energy transition, and is able to outline the structure and functioning of smart energy networks. Further, the student is familiar with the concepts of multi-vector energy networks, networks flow analysis, integration and synergy of multiple energy networks and. The student will also understand the concept of swarms of distributed energy generation and the need for storage to ensure network stability. The student will also able to outline the key energy storage methods and will be able to recommend them for distributed vs. centralized storage of both heat and electricity, for long term as well as short term. The student will also be able to use design tools for the planning and evaluation of future energy systems. The student will also be able to assess the dimensions of sustainability of smart energy networks.

Contents:

Multidisciplinary course, offered in cooperation of the Faculty of Technology (Energy and Environmental Engineering Research Unit - EEE), Oulu Business School (OBS, Department of Economics) and the Faculty of Information Technology and Electrical Engineering (Centre of Wireless Communication - CWC). After an introductory presentation on the course requirements, the basics are set in terms of defining energy transition to a carbon neutral energy future. Further the integration of multiple energy networks will be explained, as well as communication within multiple energy networks. The issue of swarms of distributed generation will be explained, as well as the economics of a system relying largely on renewables. The key storage technologies will be explained, demonstrating their use for heat or electricity storage, their effectiveness on small or large scale, as well as their purpose and economics of short and long term storage. Communication within the smart grid as well the economics of distributed generation in a future carbon neutral energy system will be explained. Finally, the sustainability assessment of smart energy network performance will be explained.
There will be no exam, however, the students will need to answer to problem questions related to the lectures and complete exercises. There will be 3 exercises, concentrating on (1) evaluation of storage technologies, (2) simulation of future smart energy networks and (3) sustainability assessment. The simulation work will be done as group work using the HOMER Energy software, for which in-class guidance will be provided. The results of the simulation will have to be presented. The rest will be done as individual work.

Mode of delivery:

Implemented as face-to-face teaching, visiting lectures and student presentations. The course largely relies on participatory learning, therefore, there are compulsory participation requirements.

Learning activities and teaching methods:

Lectures 28 h, student presentations 4 h, guided exercise work 24 h, individual work 50 h, group work 38 h.

Target group:

Master’s students of environmental engineering, especially of energy and environmental engineering orientation; Master’s students in economics; Master’s students of Electrical Engineering and Information Technology. Doctoral students are also welcome to participate.

Prerequisites and co-requisites:

Completing the course 488501S is a prerequisite, completing the course 488502S prior to this course is also recommended.

Recommended or required reading:

Will be provided during the course by the lecturers.
Chen-Ching Liu, Stephern McArthur and Seung-Jae Lee (eds.)(2016) Smart Grids handbook, 3 volume set, and Stephen F. Bush (2014): Smart Grid: Communication-Enabled Intelligence for the Electric Power Grid. http://onlinelibrary.wiley.com/book/10.1002/9781118820216.

Assessment methods and criteria:

Answering problem questions, individual and group exercise. Compulsory requirements are completing learning portfolio, answering of at least 75% of problem questions, compulsory participation in the in-course exercises and participation in the student presentation.

Grading:

The course evaluation will be based on an on-line learning portfolio, exercise performance and exercise report. The course unit utilizes a numerical grading scale 1-5. In the numerical scale, zero stands for a fail.

Person responsible:

Prof. Eva Pongrácz (WE3) and Prof. Maria Kopsakangas-Savolainen (OBS). Other lecturers: WE3: Dr. Antonio Caló, Dr. Jean-Nicolas Louis; OBS: Enni Ruokamo; CWC: Doc. Jussi Haapola

Other information:

The number of students is limited. This course is a 5 credit course for engineering students, but economics students gain overall 6 credits by doing a mandatory extra assignment which corresponds to 1 credit.

721065S: Internship, 6 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Advanced Studies

Laji: Practical training

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: English

ECTS Credits:

6 credits / 160 hours of work

Timing:

Free

Learning outcomes:

The internship offers the students the opportunity to learn how to solve problems and to learn organizational tasks and responsibilities related to their major subject. Furthermore, the internship supports students to establish relationships to both working colleagues and business management and develops their communication skills within the organization and its network. The internship offers the students the possibility to develop their skills how to apply their knowledge in working environment and to increase their competence.

Contents:

The content is made up of the job description which is related to the student´s major subject and which is provided by the organization where the internship will be accomplished. To be eligible for advanced level internship, the student should work either in a managerial position or as an independent specialist who has a responsible position with a possibility to use organizational resources.

Learning activities and teaching methods:

The student will work under the supervision of the internship instructor appointed by the company. First, student should contact lecturer Sauli Pajari to agree on the practicalities and documentation of the internship. Upon completion of the internship the student reflects and describes the internship period in the written report (8-10 pages) which will be returned with a weekly diary and a copy of the employment certificate to Sinikka Moilanen and Sauli Pajari.
The written report should be 8-10 pages and contain:
1. Description of the organization/company where the internship was completed
2. Description of the tasks, responsibilities and working methods during the internship

3. Description of how the tasks and responsibilities relate to the other functions of the organization
4. Description of how the internship relates to future career plans
5. Business development ideas for the Internship organization
6. Reflection on what was learned during the internship, how the learning relates to what has been learned earlier in the bachelor's and master's studies, and connecting the learning to theoretical concepts of the discipline.

- A description of the organization/company where the internship was completed.
- A detailed description of the tasks, responsibilities and working methods during the internship.
- Description of how the tasks and responsibilities relate to the other functions of the organization.
- Reflection on what was learned during the internship, how the learning relates to what has been learned earlier in the bachelor's and master's studies, and connecting the learning to theoretical concepts of the discipline.

Description of how the internship relates to future career plans.

Target group:

Students of the OBS Master's programmes

Prerequisites and co-requisites:

Completed bachelor's studies.

Recommended optional programme components:

No

Assessment methods and criteria:

Written internship report

Grading:

Pass/Fail

Person responsible:

Sauli Pajari and Sinikka Moilanen

Working life cooperation:

The student will work in an organization improving professional skills related to the major subject and developing business knowledge (and personal network).

Other information:

The internship is an elective course. Internship may also be a business development case or other relevant project (e.g. Demola/Business Kitchen), which needs to be accepted following the general process described above.

Module 4

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

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

ECTS Credits:

30 credits/ 800 hours

Language of instruction:

English. Master's thesis can be written in Finnish or in English.

Timing:

Periods A-D on the 2nd year of master's studies.

Learning outcomes:

Upon completion of the thesis students can choose and apply appropriate research methods to produce new knowledge and to apply that knowledge to typical business decision-making problems. Students are able to conduct scientific research and make reasonable recommendations for solving business and economic problems. Furthermore, students demonstrate deep and coherent understanding of an academic

field of study within their own major. They are able to demonstrate knowledge of the theories, concepts, frameworks and empirical findings of their discipline and understand the connections between various theories in the chosen discipline.
Students will demonstrate deep understanding of their own profession, and are able to use, process and analyze economic and/or business information. Students understand various business processes and operations, and causal connections between them. Finally, students are able to express their ideas effectively and analytically, both in oral and written form.

Contents:

Most of the work is independent writing of the thesis report, but during the master´s thesis work students participate in seminar sessions in which they present and report the status and advancement of their work. In the seminars they receive guidance and feedback from their supervisor on how to proceed in and complete their research report. Description of the process and other relevant information are available at http://www.oulu.fi/oulubusinessschool/mastersthesisprocess

Mode of delivery:

Face-to-face teaching in seminar sessions.

Learning activities and teaching methods:

Independent work and face-to-face teaching in seminar sessions. Students prepare and present three reports during the course: 1) Research plan, 2) Intermediate report and 3) Manuscript. The works starts with a kick-off session and the progress and timing of the sessions is agreed on in the kick-off session.

Target group:

Students of the Master’s program in Economics

Prerequisites and co-requisites:

723020A Bachelor’s Thesis or another university degree.

Recommended optional programme components:

-

Recommended or required reading:

Scientific articles and other theoretical and empirical materials collected by the students for their individual study.

Assessment methods and criteria:

Examination through written research report.

Grading:

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

Person responsible:

Professors

Working life cooperation:

Working life cooperation is dependent on the particular project. However, the students will learn problem solving and analytical skills as well as oral and written presentation skills needed for a business graduate in working life. Students deepen their understanding of their own profession.

Other information:

Open only to students of the Master’s program in Economics

Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

721342S: Game Theory, 6 op

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

Opettajat: Marja-Liisa Halko
Opintokohteen kielet: English

Ei opintojaksokuvauksia.