Opasraportti

TaTK - Finance 2010-2011 (2010 - 2011)

<u>**FINANCE**</u>

Subject matter

Financial economics, or simply *finance,* is a branch of economics that applies the techniques of economic analysis and quantitative methods (statistics and econometrics) to understand the savings and investment decisions by individuals, the investment, financing and payout decisions by firms, the level and properties of interest rates and prices of financial assets and derivatives, and the economic role of financial intermediaries. The traditional taxonomy of finance is (1) *corporate finance* and (2) *financial markets and asset pricing*.

Corporate finance is concerned with how businesses work, in particular, how they allocate capital (traditionally, "the capital budgeting decision") and how they obtain capital ("the financing decision"). A central theme in financial markets and asset pricing is the pursuit of an understanding of how the prices of financial securities are determined in financial markets. *Behavioral finance* is a new, controversial field, which seeks to show that psychological biases of individuals affect the pricing of securities.

Learning objectives

Basic studies: Students will become familiar with the principles of capital budgeting and financial planning, understand the theoretical foundations of financial decisions of corporations; become familiar with the theoretical principles of equity pricing and the modern portfolio theory; learn how to calculate asset returns and basic risk measures; become familiar with the nature of financial risks and understand the basics of financial risk management; and become familiar with the basics of SAS programming.

Intermediate studies: Students will enhance their knowledge and skills in corporate finance and asset pricing; become familiar with conducting academic research in finance, empirical analysis of financial data and the principles and use of derivatives securities; and learn the principles of behavioral finance.

Advanced studies: Students will learn how to apply basic quantitative methods to empirical problems in asset pricing and portfolio theory; and understand the important features of time series of market prices, appreciate the relevance of efficient market theory to predicting prices, become familiar with appropriate methods in forecasting return volatility, acquire experience of applying computational methods to market data using the free R language and become informed about the broad range of econometrics methods that are applied in finance research.

BASIC STUDIES
721362P Introduction to Financial Economics 5 ects
721178P Fundamentals of Corporate Finance 5 ects
721361P Investments 5 ects
721174P Financial Risk Management 5 ects

In addition at least one (5 ects) of these:
721363P Introduction to Market Analysis 5 ects
721364P Introduction to Computational Finance 5 ects

INTERMEDIATE STUDIES
In addition to basic studies:
721921A Seminar in Finance 10 ects
721198A Derivative Securities 5 ects
721370A Fixed Income Securities 5 ects

721199A Equity Markets 5 ects
721922A Theory of Corporate Finance 5 ects

And at least one (5 ects) of these:
721371A Entrepreneurial Finance 5 ects
721170A Financial Analysis and Firm Valuation 5 ects
721009A Additional Courses in Finance, intermediate level 5 ects
721241A Field Project 5 ects

ADVANCED STUDIES
721950S Master's Thesis Seminar, Finance 30 ects
721952S Portfolio Management 6 ects
721951S Portfolio Performance Analysis 6 ects
721954S Financial Econometrics 6 ects
721383S Asset Pricing 6 ects

And at least one (6 ects) of these:
721956S Alternative Investments 6 ects
721190S Advanced Firm Valuation 6 ects
721317S International Economics 6 ects
721189S Advanced Financial Analysis 6 ects
721310S Macroeconomic Analysis 6 ects
721320S Microeconomic Analysis 6 ects
721955S Special Issue 6 ects

Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja -jaksot

721009A: Additional Courses in Finance, Intermediate Level, 0 op
721956S: Alternative Investments, 6 op
721383S: Asset Pricing, 6 op
721198A: Derivative Securities, 5 op
721371A: Entrepreneurial Finance, 5 op
721199A: Equity Markets, 5 op
721241A: Field Project, 5 op
721954S: Financial Econometrics, 6 op
721174P: Financial Risk Management, 5 op
721370A: Fixed Income Securities, 5 op
721178P: Fundamentals of Corporate Finance, 5 op
721364P: Introduction to Computational Finance, 5 op
721362P: Introduction to Financial Economics, 5 op
721363P: Introduction to Market Analysis, 5 op
721361P: Investments, 5 op
721950S: Master's Thesis, Finance, 30 op
721952S: Portfolio Management, 6 op
721951S: Portfolio Performance Analysis, 6 op
721924A: Seminar in Finance, 10 op
721955S: Special Issue in Finance, 6 op
721922A: Theory of Corporate Finance, 5 op

Opintojaksojen kuvaukset

Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

721009A: Additional Courses in Finance, Intermediate Level, 0 op

Voimassaolo: 01.08.2003 -
Opiskelumuoto: Intermediate Studies
Laji: Course
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 finance.
Grading:
1-5.
Person responsible:
Professor in finance.

721956S: Alternative Investments, 6 op

Voimassaolo: 01.08.2010 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Hannu Kahra
Opintokohteen kielet: English

ECTS Credits:
6 ects.

Language of instruction:
English.

Timing:
Period D.

Learning outcomes:
Alternative investments are assets considered outside of the traditional asset classes of stocks, bonds and cash. The students will learn that due to their special characteristics, alternative assets tend to have low correlations with traditional asset classes, providing additional portfolio diversification and potential for higher returns.
Contents:
The course aims to give an introduction to investing in (1) real estate, (2) private equity and venture capital, (3) hedge funds, and (4) commodities, currencies and volatility.

Learning activities and teaching methods:
40 hours of lectures, assignments and teamwork.

Recommended or required reading:
Material provided by the lecturers.
Assessment methods and criteria:

Exam and assignments.
Grading:
1-5.

Person responsible:
Researcher Juha Joenväärä and professor Hannu Kahra.

721383S: Asset Pricing, 6 op

Voimassaolo: 01.08.2008 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Juha Joenväärä
Opintokohteen kielet: English

ECTS Credits:
6 ects.

Language of instruction:
English.

Timing:
Period C.

Learning outcomes:
The students will become familiar with modern asset pricing theory and econometric methods in applying theoretical models in empirical research.
Contents:
The pricing of all assets is based on a single idea: price equals expected discounted payoff that captures the macroeconomic risks underlying each security's value. Traditional asset pricing models (CAPM, ICAPM, APT) are embedded in the stochastic discount factor (SDF) framework. One of the key issues is that there is a relation between discount factors, betas and mean-variance frontiers: they are equivalent concepts. A wide variety of popular methods, including time-series and cross-sectional regressions, and methods based on generalized method of moments (GMM) and maximum likelihood are presented and applied to empirical data.
Learning activities and teaching methods:
40 hours of lectures and exercises, independent studying of text books. SAS and R, an open-source computing package are applied in the course.
Recommended or required reading:
Cochrane: Asset Pricing, Oxford University Press, 2 nd edition; Connor, Goldberg and Korajczyk: Portfolio Risk Analysis, Princeton University Press.

Check availability from here.
Assessment methods and criteria:
Exam, assignments.
Grading:
1-5.

Person responsible:
Researcher Juha Joenväärä

721198A: Derivative Securities, 5 op

Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Perttunen, Jukka Olavi

Opintokohteen kielet: English
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
5 ects.
Language of instruction:
English.
Timing:
Period D.
Learning outcomes:
The students will become familiar with the principles and basic methods of pricing of derivatives securities as well as be able to apply them in the pricing and hedging of advanced derivatives securities.
Contents:
The course aims to deepen the understanding of the theory and the pricing mechanism of derivative securities. Topics covered are the risk-neutral valuation principle, analytical and numerical valuation methods, the hedging of derivative securities, and volatility estimation
Learning activities and teaching methods:
40 hours of lectures and exercises, independent studying of text books.
Recommended or required reading:
Hull: Options, Futures & Other Derivatives, Pearson, 6th edition.

Check availability from here.
Assessment methods and criteria:
Exam.
Grading:
1-5.
Person responsible:
Professor Jukka Perttunen.

721371A: Entrepreneurial Finance, 5 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: English

ECTS Credits:
5 ects.

Language of instruction:
English.

Timing:
Academic year 2011/2012.

Learning outcomes:
Understand the broader issues of investing in entrepreneurial ventures, understand the more detailed issues of how to evaluate and finance entrepreneurial investments, and study interaction of finance and strategy. Ultimately the goal is to give some of the tools needed to start a company and finance it, be a venture capitalist or private equity partner and invest in private equity partnership.

Contents:
This class examines the elements of entrepreneurial finance, focusing on technology-based start-up ventures, and the early stages of company development. It addresses key questions which challenge all entrepreneurs: how much money can and should be raised; when should it be raised and from whom; what is a reasonable valuation of the company; and how funding should be structured. The subject aims to prepare students for these decisions, both as entrepreneurs and venture capitalists.

Learning activities and teaching methods:

40 hours of lectures.

Grading:
1-5.

Person responsible:
N.N.

Other information:
Note: The course will not be available during the academic year 2010/2011.

721199A: Equity Markets, 5 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opettajat: Kyröläinen, Petri Juhani

Opintokohteen kielet: English

Voidaan suorittaa useasti: Kyllä

ECTS Credits:
5 ects.
Language of instruction:
English.
Timing:
Period D.
Learning outcomes:
Upon completion of this course, students will become familiar with the recent empirical research in equity markets, especially those in investor and stock price behavior. Minimum requirements for passing the course is the awareness of key behavioral biases of equity market investors and how these biases potentially affect stock prices. In addition, students should become familiar with the various limits of arbitrage that can facilitate prolonged mispricings in equity markets. Furthermore, students should become aware of historical returns and risks of various equity market trading strategies. On the basis of this knowledge, students will be able to make more rational investment decisions in equity markets. Students will demonstrate their knowledge and understanding of equity market issues by a written exam.
Contents:
The course deepens the understanding of the knowledge and the understanding of the behavior of equity markets, especially from the point of view of behavioral finance research. The topics covered include investor behavior, limits of arbitrage, and stock return predictability.
Learning activities and teaching methods:
40 hours of lectures and exercises.
Recommended or required reading:
Thaler: Advances in Behavioral Finance. Vol II; Nofsinger: The Psychology of Investing. Pearson 2nd edition. Additional material provided by the instructor.

Check availability from here.
Assessment methods and criteria:
Exam.
Grading:
1-5.
Person responsible:
Postdoctoral researcher Petri Kyröläinen.

721241A: Field Project, 5 op

Opiskelumuoto: Intermediate Studies

Laji: Practical training

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:
5 ects.

Language of instruction:
Free.

Timing:
Free.

Learning outcomes:
To be agreed with the professor.

Grading:
1-5.

Person responsible:
The professor(s) of the major.

721954S: Financial Econometrics, 6 op

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Hannu Kahra
Opintokohteen kielet: English

Required proficiency level:
Introduction to Econometrics (721060A) must be compleated before attending to this course.
ECTS Credits:
6 ects.

Language of instruction:
English.

Timing:
Period D.

Learning outcomes:
After completing the course students should: understand the important features of time series of market prices, appreciate the relevance of efficient market theory to predicting prices, be familiar with appropriate methods for forecasting price volatility, be able to use option prices to make statements about the distributions of future asset prices, have acquired experience of applying computational methods to market data, be informed about a broad range of econometric methods that are applied in finance research, and apply extreme value theory in calculating value at risk of a financial position.
Contents:
Probability foundations (probability concepts, prices, returns and volatility clustering, stochastic processes, ARMA models for financial returns), stylized facts for returns from financial assets, expected returns using time series information (testing for a random walk process using the variance-ratio test, methods that use trading rules to assess the predictability of returns and the efficiency of markets), modeling volatility using time series information (univariate and multivariate GARCH models and stochastic volatility), and a review of econometric methods (maximum likelihood, GMM, MCMC and Kalman filter).

Learning activities and teaching methods:
40 hours of lectures and assignments, independent studying of text books. R, an open-source computing package is applied in the course.
Recommended or required reading:
Tsay: Analysis of Financial Time Series, John Wiley & Sons, 2 nd edition; Taylor: Asset Price Dynamics, Volatility, and Prediction, Princeton University Press; and material provided by the instructor.

Check availability from here.
Assessment methods and criteria:
Computer lab exam, assignments.
Grading:
1-5.

Person responsible:
Professor Hannu Kahra.

721174P: Financial Risk Management, 5 op

Voimassaolo: 01.10.2006 -

Opiskelumuoto: Basic Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

Leikkaavuudet:

ay721174P   Financial Risk Management (OPEN UNI)   5.0 op

ECTS Credits:
5 ects.
Language of instruction:
English.
Timing:
Period C.
Learning outcomes:
Students will become familiar with the nature of financial risks and understand the basic methods of financial risk management.
Contents:
The course introduces students to the basic concepts of financial risk management: evaluation and management of market risk, credit risk, and operational risk.
Learning activities and teaching methods:
40 hours of lectures and exercises, independent studying of text books.
Recommended or required reading:
Hull: Risk Management and Financial Institutions, Pearson.

Check availability from here.
Assessment methods and criteria:
Exam.
Grading:
1-5.
Person responsible:
Professor Jukka Perttunen.

721370A: Fixed Income Securities, 5 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opettajat: Hannu Kahra

Opintokohteen kielet: English

Required proficiency level:
Financial Risk Management (721174P) must be compleated before attending to this course.
ECTS Credits:
5 ects.

Language of instruction:
English.
Timing:
Period B.
Learning outcomes:
Effective risk management is essential in today's uncertain business environment. Derivatives and especially fixed income derivatives are standard instruments for managing financial risk. It is critical for anyone involved in corporate or financial risk management to have a deep-rooted understanding of interest rate risk and fixed income securities.
Contents:
This course explores key issues in fixed income. It develops tools for valuing and modeling the risk exposures of fixed income securities and their derivatives, with the ultimate goal of deploying these instruments in a corporate or financial risk management setting. The course is divided into three parts, covering (1) basic fixed income securities, (2) fixed income derivatives with a focus on popular interest rate models used to value them and (3) quantitative management of fixed income portfolios. To make the material broadly accessible, concepts are, whenever possible, explained through hands-on applications and examples, rather than through advanced mathematics.
Learning activities and teaching methods:
40 hours of lectures and assignments. R, an open-source computing package is applied in the course.
Recommended or required reading:
Tuckman: Fixed Income Securities - Tools for Today's Markets, Wiley & Sons; and material provided by the instructor.

Check availability from here.
Assessment methods and criteria:
Exam, assignments and teamwork.
Grading:
1-5.
Person responsible:
Professor Hannu Kahra.

721178P: Fundamentals of Corporate Finance, 5 op

Opiskelumuoto: Basic Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opettajat: Mirjam Lehenkari

Opintokohteen kielet: Finnish

Leikkaavuudet:

   ay721178P   Fundamentals of Corporate Finance (OPEN UNI)   5.0 op

Voidaan suorittaa useasti: Kyllä

   ECTS Credits:
5 ects.
Language of instruction:
Finnish/English.
Timing:
Period A
Learning outcomes:
Upon successful completion of this course, the student will be able to: identify the major areas of corporate finance; define the primary goal of financial management; define agency relationship and identify potential agency problems between stockholders and managers; calculate cash flow from assets and its components; demonstrate an understanding of the relationship between growth and external financing requirements; apply time value of money principles in a variety of contexts; demonstrate an understanding of different types of interest rates; explain the fundamental differences between debt and equity; describe the key features of bonds; master the basics of bond valuation; apply the dividend growth model to stock valuation; evaluate investment projects using various investment appraisal techniques; discuss the advantages of using net present value over other investment appraisal techniques; calculate project cash flows for capital budgeting analysis; recognize the trade-off between risk and return; distinguish between various types of risks; explain the logic underlying the CAPM; apply CAPM to estimate required rates of return on investments; compare different types of equity offerings; estimate the cost of

capital for a firm and explain the assumptions used in its estimation and use; show an understanding of the Modigliani-Miller theories of capital structure and dividend policy; quantify the effects of financial leverage on firm value; explain how dividends are paid and how firms repurchase shares; and identify factors that influence dividend policy in practice.

Contents:
This course is an introduction to the theory and practice of financial management. The objective is to familiarize the student with the basic concepts and principles in the field of corporate finance, and to provide the student with an understanding of the key decision-making processes and tools of financial management.

Learning activities and teaching methods:
40 hours of lectures in Finnish (or 20 hours in English), 80-100 hours of independent study.

Recommended or required reading:
Ross, Westerfield & Jordan: Fundamentals of Corporate Finance. Irwin/McGraw-Hill, 4th (or later) ed.

Check availability from here.

Assessment methods and criteria:
Exam.

Grading:
1-5.

Person responsible:
Postdoctoral researcher Mirjam Lehenkari (in Finnish) and researcher Andrew Conlin (in English).

721364P: Introduction to Computational Finance, 5 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opettajat: Hannu Kahra

Opintokohteen kielet: English

Required proficiency level:
Mastering Investments (721361P) will be useful but is not mandatory.

ECTS Credits:
5 ects.

Language of instruction:
English.

Timing:
Period C.

Learning outcomes:
Computational finance is an area that employs computational approaches to solve financial problems. After the course, students are able to apply statistical software, namely R, the open-source language that is free to download. Focusing on implementation rather that theory, the course serves as an accessible introduction to statistical problem solving in finance.

Contents:
First, the course reviews basic concepts in probability and classical statistical inference. Thereafter the course introduces students to the calculation of basic statistical measures, statistical testing and inference, risk and return calculation, and basics of regression analysis. The selection of topics includes the traditional core material of computational finance: simulating random variables from probability distributions, Monte Carlo and MCMC methods, bootstrapping, density estimation, and visualization of data.

Learning activities and teaching methods:
Working methods include 40 hours of lectures and computer lab exercises, as well as independent studying of textbooks and other material. Alongside, providing theoretical backgrounds for statistics and econometrics, the lectures are aimed to introduce students to the use of R in financial problem-solving. During computer lab exercises, students are given various programming and computing problems to solve using the R programming language.

Recommended or required reading:
Braun and Murdoch: A First Course in Statistical Programming with R, Cambridge; Rizzo: Statistical Computing with R, Chapman & Hall/CRC; and material provided by the instructor.

Check availability from here.

Assessment methods and criteria:
Computer lab exam and assignments.

Grading:
1-5.

Person responsible:
Professor Hannu Kahra

Other information:
Note: The course is an alternative to Introduction to Market Analysis (721902P)

721362P: Introduction to Financial Economics, 5 op

Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Hannu Kahra
Opintokohteen kielet: English

ECTS Credits:
5 ects.
Language of instruction:
English.
Timing:
Period A.
Learning outcomes:
Financial economics is an exciting new field of study that integrates the theory of finance and financial institutions into the main body of economic theory. Students of economics are shown how finance theory derives from foundations in economic theory. Students in finance are given a firmer appreciation of the economic logic underlying their favorite results. Traditionally students are taught economics and finance as if they were separate disciplines.
Contents:
First, the course provides the students a review of the history of the fundamental contributions in financial economics that have profoundly influenced modern investment theory and shaped the capital and derivatives markets. Thereafter, the course reviews decision-making under uncertainty, portfolio choice, systems of financial markets, arbitrage and option pricing, firms and financial markets, symmetric and asymmetric information, bank regulation, the role of financial intermediaries, and behavioural finance.
Learning activities and teaching methods:
40 hours of lectures.
Recommended or required reading:
Material provided by the instructor.
Assessment methods and criteria:
Exam.
Grading:
1-5.
Person responsible:
Professor Hannu Kahra.

721363P: Introduction to Market Analysis, 5 op

Voimassaolo: 01.08.2010 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Tuomo Haapalainen

Opintokohteen kielet: Finnish

Required proficiency level:
Mastering Investments (721361P) will be useful but is not mandatory.
ECTS Credits:
5 ects.
Language of instruction:
English.
Timing:
Period C.
Learning outcomes:
After the course, students are able to solve financial problems using statistical software, namely, Excel and SAS. Students are able to apply statistical analysis and inference to test scientific hypotheses. They will also gain knowledge in fields special to finance, namely, they will be able to calculate returns and risks of publicly traded stocks, do technical analysis and allocate wealth over multiple assets. Students will also learn how to investigate dependency between variables using regression analysis. After the course, students will have the necessary level of programming skills to learn more about Excel and SAS on their own.
Contents:
The course introduces students to the calculation of basic statistical measures, statistical testing and inference, risk and return calculation, and basics of regression analysis. Also basic methods for analyzing stock price behaviour through technical analysis will be covered. Students will also become familiar with the most basic asset allocation decisions.
Learning activities and teaching methods:
Working methods include 40 hours of lectures and computer lab exercises, as well as independent studying of textbooks and other material. Alongside providing theoretical backgrounds for statistics and econometrics, the lectures are aimed to introduce students to the use of Excel and SAS in financial problem-solving. During computer lab exercises, students are given various calculation problems to solve using these programming languages.
Recommended or required reading:
Material announced during the lectures, including lecture notes, textbooks and manuals.
Assessment methods and criteria:
Computer lab exam and assignments.
Grading:
1-5.
Person responsible:
Researcher Tuomo Haapalainen.
Other information:
Note: The course is an alternative to Introduction to Computational Finance (721364P).

721361P: Investments, 5 op

Opiskelumuoto: Basic Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opettajat: Mirjam Lehenkari

Opintokohteen kielet: Finnish

Leikkaavuudet:

ay721361P   Investments (OPEN UNI)   5.0 op

ECTS Credits:
5 ects.
Language of instruction:
Finnish/English.
Timing:
Period B.
Learning outcomes:
Upon successful completion of this course, the student will be able to: describe the most common types of securities and explain where and how they are traded; demonstrate an understanding of the conceptual foundations of modern portfolio theory; outline the benefits of diversification; distinguish between various types of

risks; distinguish between active and passive portfolio construction; describe the process of determining portfolio asset allocation and security selection; master the basics of portfolio optimization and its implementation using index models; derive the CAPM and discuss its implications for asset pricing; describe the fundamental ideas behind the APT; compare and contrast CAPM and APT; apply CAPM and APT using single-index and multifactor models of security returns; define and explain the efficient market hypothesis (EMH); differentiate between the three forms of market efficiency; explain the implications of the EMH for investment policy; and apply free cash flow model and multiples to stock valuation.

Contents:
This course is an introduction to the fundamentals of modern investment theory. The objective of the course is to develop the student's knowledge of the types of financial instruments and of the structure and operation of security markets, and to provide the student with an understanding of the theoretical foundations and application of modern portfolio theory and equilibrium models of security prices.

Learning activities and teaching methods:
40 hours of lectures in Finnish (or 20 hours in English), 80-100 hours of independent study.

Recommended or required reading:
Bodie, Kane & Marcus: Investments, Irwin/McGraw-Hill, 4th edition (or later).

Check availability from here.

Assessment methods and criteria:
Exam.

Grading:
1-5.

Person responsible:
Postdoctoral researcher Mirjam Lehenkari (in Finnish) and researcher Andrew Conlin (in English).

721950S: Master's Thesis, Finance, 30 op

Opiskelumuoto: Advanced Studies

Laji: Diploma thesis

Arvostelu: A,B,N,C,M,EX,L

Opintokohteen kielet: Finnish, English

ECTS Credits:
30 ects.

Language of instruction:
Finnish / English.

Timing:
Periods A-D.

Learning outcomes:
The students will become familiar with conducting independent academic research and be able to apply academic research methodology in the field of finance.

Contents:
The aim of the course is to support students writing their master's thesis. The students present their research reports at least twice during the academic year.

Assessment methods and criteria:
Participation in seminars, accepted research reports.

Grading:
1-5.

Person responsible:
Professor Jukka Perttunen and professor Hannu Kahra.

721952S: Portfolio Management, 6 op

Opiskelumuoto: Advanced Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opettajat: Juha Joenväärä

Opintokohteen kielet: English

Voidaan suorittaa useasti: Kyllä

ECTS Credits:
6 ects.
Language of instruction:
English.

Timing:
Period A.
Learning outcomes:
The students will become familiar with the basic quantitative methods of modern portfolio management as well as be able to apply them in practice.

Contents:
The course introduces the students to the applying of advanced portfolio management techniques. As a part of the course, each student implements his/her personal portfolio management policy, which is then applied in managing of an artificial investment portfolio over the academic year.
Learning activities and teaching methods:
40 hours of lectures, exercises, teamwork and seminar. SAS and R, an open-source computing package are applied in the course.
Recommended or required reading:
Litterman and Goldman Sachs Quantitative Resources Group: Modern Investment Management - An Equilibrium Approach, Wiley & Sons; material provided by the instructor.

Check availability from here.
Assessment methods and criteria:
Exam, assignments.
Grading:
1-5.

Person responsible:
Researcher Juha Joenväärä.

721951S: Portfolio Performance Analysis, 6 op

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Pekka Tolonen
Opintokohteen kielet: English
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
6 ects.

Language of instruction:
English.

Timing:
Period B.

Learning outcomes:
Performance analysis is the final stage in the portfolio management process. The students will become familiar with the basic methods of modern portfolio performance analysis as well as apply them in practice.

Contents:
The term "performance analysis" covers the techniques that are implemented to study the results of portfolio management. These range from simple performance measurement to performance attribution. Performance measurement consists of measuring the difference in the value of the portfolio, or investment fund, between the beginning and the end of the evaluation period. Performance attribution breaks down the return to attribute the

exact contribution of each phase in the process to the overall portfolio performance, thus allowing the manner in which the result was obtained to be understood. The intermediate step is performance evaluation, which explains how the measured return was obtained and whether the result is due to skill or luck.
Learning activities and teaching methods:
40 hours of lectures, exercises and teamwork. SAS and R, an open-source computing package are applied in the course.
Recommended or required reading:
Aragon & Ferson: Portfolio Performance Evaluation, Boston - Delft and material provided by the instructor.

Check availability from here.
Assessment methods and criteria:
Exam, assignments.
Grading:
1-5.

Person responsible:
Researcher Pekka Tolonen.

721924A: Seminar in Finance, 10 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:
10 ects.
Language of instruction:
Finnish/English
Timing:
Periods A-D.
Learning outcomes:
Upon successful completion of this course, the student will be able to: effectively acquire information; critically evaluate the quality and worth of information; cite references properly; define a research topic and provide a rationale for it; combine pieces of information with a view to problem solving; and present the results of his/her work clearly and accurately.
Contents:
This course is an introduction to conducting scientific research in the field of finance. The objective of the course is to develop the student's scientific thinking, acquiring, organizing, and processing information, as well as scientific writing and communicating skills.

Learning activities and teaching methods:
Introductory lectures, information-retrieval training sessions, independent work, and seminar sessions.
Recommended or required reading:
Instructions for Thesis Work (a handout).
Grading:
1-5.
Person responsible:
Postdoctoral Researcher Mirjam Lehenkari.
Other information:
A bachelor's degree involves a maturity test and the thesis must be bound in hard covers. A student who already has a bachelor's degree should contact the course instructor.

721955S: Special Issue in Finance, 6 op

Opiskelumuoto: Advanced Studies

Laji: Course

Arvostelu: 1 - 5, pass, fail

Opettajat: Perttunen, Jukka Olavi

Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
6 ects.
Language of instruction:
Free.
Timing:
Free.
Learning outcomes:
To be agreed with the professor of finance.
Grading:
1-5.
Person responsible:
The professor of Finance.

721922A: Theory of Corporate Finance, 5 op

Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Kyröläinen, Petri Juhani
Opintokohteen kielet: English
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
5 ects.
Language of instruction:
English.
Timing:
Period C.
Learning outcomes:
Upon completion of this course, students have acquired knowledge and understanding of the theoretical and empirical models of corporate finance based especially on asymmetric information and psychology. Minimum requirements for passing the course is the understanding how corporate managers optimally choose capital structures and payout policies. In addition, students should understand the key motives for mergers & acquisitions, and how to evaluate costs and benefits of mergers & acquisitions. Furthermore, students should become familiar with the conflicts of interest between different corporate stakeholders as well as potential behavioral biases of corporate managers, and how these conflicts of interests and biases affect the corporate decision making. Students should also learn how the corporate governance methods can be used to alleviate these problems. Students will demonstrate their knowledge and understanding of corporate finance issues by a written exam and presentation.
Contents:
The course deepens the understanding of the theoretical foundations of corporate finance, especially, the role of asymmetric information and psychology in financial decision making. The business applications include corporate governance, capital structure, payout policy, and mergers & acquisitions.
Learning activities and teaching methods:
40 hours of lectures and group exercises. Minicases will be discussed during the lectures.
Recommended or required reading:
Copeland, Weston & Shastri: Financial Theory and Corporate Policy, Pearson. Additional material provided by the instructor.

Check availability from here.
Assessment methods and criteria:
Exam and group exercises.
Grading:
1-5.
Person responsible:
Postdoctoral researcher Petri Kyröläinen.