

# Opasraportti

## Master of Science (MSc) Finance 2015-2016 (2015 - 2016)

Master of Science (Econ. & Bus. Ad.) degree in **Finance** provides students with a strong foundation in the theoretical and empirical tools of modern finance. Topics covered include asset pricing, corporate finance, portfolio management and risk management. The approach is analytical and methodologically oriented. The programme provides students with the knowledge and skills required to work in demanding specialist and executive positions in the financial sector, and gives a good basis for further academic studies at the postgraduate level.

After completing the Master of Science (Econ. & Bus. Adm.) degree in finance the student is able to

- recognize differences between traditional thinking and 'new facts' in finance
- choose and apply the most important methods in financial econometrics
- show expertise in a specific subject area by conducting independent research and reporting on the implementation and results of the research

### Course Structure Diagram in 2015-2016

[MSc \(Econ. & Bus. Adm.\) in Finance](#)

## Tutkintorakenteet

### Master of Science, Econ. & Bus. Adm. (Master's Programme in Finance, MF)

Tutkintorakenteen tila: published

Lukuvuosi: 2015-16

Lukuvuoden alkamispäivämäärä: 01.08.2015

### Major studies (vähintään 120 op)

Internship (721065S) can be included in the degree only once: either in module 2 (Financial management) or in module 3 (Investments).

H635435: International MSc. Programme in Finance, 120 - 130 op

#### *General studies*

- 721957S: Fundamentals of Finance, 6 op
- 721958S: Empirical Research in Finance I, 6 op
- 721338S: Mathematical Economics, 6 op
- 721066S: Principles of Econometrics, 6 op
- 721070S: Globally Responsible Business, 6 op

#### *Financial Management: Select five of these courses*

- 721963S: Corporate Finance, 6 op
- 721960S: Financial Risk Management, 6 op

721961S: Entrepreneurial Finance, 6 op  
 721128S: Corporate Governance, 6 op  
 721137S: International Financial Reporting, 6 op  
 721190S: Advanced Firm Valuation, 6 op  
 721065S: Internship, 6 op

*Investments: Select five of these courses*

721383S: Asset Pricing, 6 op  
 721952S: Portfolio Management, 6 op  
 721956S: Alternative Investments, 6 op  
 721954S: Financial Econometrics, 6 op  
 721962S: International Finance, 6 op  
 721959S: Empirical Research in Finance II, 6 op

*Master's Thesis*

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

## Opintojaksojen kuvaukset

### Tutkintorakenteisiin kuuluvien opintokohteiden kuvaukset

#### **H635435: International MSc. Programme in Finance, 120 - 130 op**

**Voimassaolo:** 01.08.2010 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Study module

**Vastuuyksikkö:** Oulu Business School

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

*General studies*

#### **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.

**Contents:**

Interest rates and discounting, corporate cash flows, operating leverage, financial leverage, diversification, bond valuation, equity valuation, financial risk management and derivative securities, asset-liability management.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

36 hours lectures and exercises, including two voluntary 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 voluntary intermediate exams, which replace the two weakest answers in the final exam, respectively. The final exam is mandatory and consists of five questions or problems.

**Grading:**

1-5

**Person responsible:**

Jukka Perttunen

**Working life cooperation:**

No

**Other information:**

The number of students is limited.

**721958S: Empirical Research in Finance I, 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:**

Periods A-B

**Learning outcomes:**

Upon completion of the course, the student understands the nature of empirical research and is able to write a literature review of a specified topic in finance. The student knows current research topics in finance and the availability of empirical databases for financial research. The student is able to conduct basic empirical analyses of financial data using Excel and SAS.

**Contents:**

The nature of empirical research, writing of a literature review, writing of a research report, current research topics in finance, finance databases, Excel modeling, basics of SAS-programming.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

60 hours lectures and exercises. Independent studying 100 hours.

**Target group:**

Major students in finance.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

Materials provided by instructors.

**Assessment methods and criteria:**

The required minimum participation rate is 80% (48 hours). The student has to write a 1) literature review of an assigned research topic in finance, and complete a home exercise in both 2) Excel modeling and 3) SAS-programming. The three assignments are graded with the scale 1-5. The final grade of the course is the arithmetic mean of the three subgrades.

**Grading:**

1-5

**Person responsible:**

Jukka Perttunen

**Working life cooperation:**

No

**Other information:**

The number of students is limited.

**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 4 hours, preparing for the lectures, exercises and exam 102 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.

[Check the availability of course material from this link.](#)

**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:**

No.

**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:** Marko Korhonen

**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 theoretical background of 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 EViews software in econometric analyses.

**Contents:**

Statistical basics of econometrics, and especially the use of basic econometric models in the analysis of different economic phenomena. In addition to regression models adapted to cross-section data, the course familiarizes students with basic features of time series analysis. The main focus is on dealing with the basic concepts of econometrics and familiarizing with the use of EViews software.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

36 hours of lectures, 18 hours of exercises, exam 4 hours, preparing for the lectures, exercises and exam 102 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.

[Check the availability of course material from this link.](#)

**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:**

No

**Other information:**

The number of students is limited.

**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. It is recommended to complete the course during the Master's programme's 1<sup>st</sup> spring semester.

**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.

**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:**

Face-to-face teaching

**Learning activities and teaching methods:**

Lectures (36 h), Group-work (80 h), Individual report (4 h), Independent studies (40 h).

**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:**

Chandler, D. & Werther, W.B.Jr. (2014): Strategic Corporate Social Responsibility. Stakeholders, Globalization, and Sustainable Value Creation. Third Edition. Sage Publications. Articles and materials provided by the course instructors.

[Check the availability of course material from this link.](#)

**Assessment methods and criteria:**

Written report composed by a study group.

**Grading:**

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

**Person responsible:**

Jan Hermes and Prof. Pauliina Ulkuniemi.

**Working life cooperation:**

no

**Other information:**

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

*Financial Management: Select five of these courses*

**721963S: Corporate Finance, 6 op**

**Voimassaolo:** 01.08.2014 -

**Opiskelumoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu Business School

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Markku Vieru

**Opintokohteen kielet:** English

**Leikkaavuudet:**

721922A Theory of Corporate Finance 5.0 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, the student understands the key concepts of corporate finance theory. The student is able to analyze the capital structure and payout decisions, motivations behind mergers and acquisitions, and the effects of conflicts of interest between different corporate stakeholders on corporate decision making.

**Contents:**

Signaling theory, agency theory, optimal capital structure, dividend policy, mergers and acquisitions.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

36 hours lectures and exercises, including article presentations. 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; Copeland, Weston & Shastri: Financial Theory and Corporate Policy.

[Check the availability of course material from this link.](#)

**Assessment methods and criteria:**

Final exam.

**Grading:**

1-5

**Person responsible:**

Markku Vieru

**Working life cooperation:**

No

## **721960S: Financial Risk Management, 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

**Leikkaavuudet:**

721198A Derivative Securities 5.0 op

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

6 credits / 160 hours of work

**Language of instruction:**

English

**Timing:**

Period D

**Learning outcomes:**

Upon completion of the course, the student knows how to use derivative securities in financial risk management. The student understands the pricing of derivatives and is able to use the main analytical and numerical techniques for that purpose.

**Contents:**

Forward contracts, forward rate agreements, interest rate swaps, futures contracts, options, derivatives pricing models, numerical pricing techniques.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

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

**Target group:**

Major students in finance. 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; Hull: Options, Futures, and other Derivatives.

[Check the availability of course material from this link.](#)

**Assessment methods and criteria:**

During the course, there are two voluntary intermediate exams, which replace the two weakest answers in the final exam, respectively. The final exam is mandatory and consists of five questions or problems.

**Grading:**

1-5

**Person responsible:**

Jukka Perttunen

**Working life cooperation:**

No

**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:** Juha Joenväärä

**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 of a start-up venture and its financing. 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.

**Mode of delivery:**

Face-to-face teaching.

**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 and Tuomas Takalo

**Working life cooperation:**

No

**Other information:**

The number of students is limited.

**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<sup>st</sup> 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 moreover act in difficult situations of being asked to act dishonestly.

**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, 4 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.

[Check the availability of course material from this link.](#)

**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:**

Not applicable.

**Other information:**

Not applicable.

**721137S: International Financial Reporting, 6 op**

**Voimassaolo:** 01.08.2014 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu Business School

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Anna Rossi

**Opintokohteen kielet:** English

**Leikkaavuudet:**

721170A Financial Analysis and Firm Valuation 5.0 op

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

6 ECTS credits.

**Language of instruction:**

English.

**Timing:**

Period A. It is recommended to complete the course during the Master's programme's 1<sup>st</sup> fall semester.

**Learning outcomes:**

Upon completion of the course, the student is able to prepare and interpret financial statements and knows how and why managers can utilize flexibility in financial reporting. A student develops understanding of the economics of different business transactions, the environment in which financial reporting choices are made and knows how to use the resultant accounting information for various types of decisions. In addition, the student is aware of the main differences in financial reporting practices allowed in U.S. GAAP and International Financial Reporting (IFRS).

**Contents:**

Application of the major concepts of financial accounting under U.S. GAAP and IFRS: accrual accounting, matching principle, revenue recognition, and measurement and recognition of assets and liabilities. Preparation and analysis of financial statements: income statement, balance sheet, and cash flow statement.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

Lectures (26 hours), exercises (10 hours), self-study (124h).

**Target group:**

Major students.

**Prerequisites and co-requisites:**

Basic course in bookkeeping or Stickney, Weil, Schipper & Francis: Financial Accounting: an Introduction to Concepts, Methods and Uses, South-Western Cengage Learning, 13th Edition, Chapters 1-6.

**Recommended optional programme components:**

Not applicable.

**Recommended or required reading:**

Revsine, Collins, Johnson & Mittelstaedt: Financial Reporting and Analysis, 5th ed. (2011). McGraw-Hill /Irwin. Selected chapters.

[Check the availability of course material from this link.](#)

**Assessment methods and criteria:**

Exam.

**Grading:**

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

**Person responsible:**

TBA.

**Working life cooperation:**

no.

**Other information:**

The number of students is limited.

**721190S: Advanced Firm Valuation, 6 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu Business School

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Kallunki Juha-Pekka

**Opintokohteen kielet:** English

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

6 ECTS credits.

**Language of instruction:**

English.

**Timing:**

Period D. It is recommended to complete the course during the Master's programme's 1<sup>st</sup> Spring semester.

**Learning outcomes:**

After passing the course students can use different firm valuation methods, can identify advantages and disadvantages of these methods, and can assess their usability in different valuation situations. Student can also analyze the determinants of the value creation of the firm, and can complete advanced analyses of profitability, financial leverage and growth of the firm.

**Contents:**

Lectures, exercises, and case discussions and presentations

**Mode of delivery:**

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

**Learning activities and teaching methods:**

32 h of lectures, 8 h of exercises and class discussions/student, case works 50 h , self-study 70 h.

**Target group:**

Major students.

**Prerequisites and co-requisites:**

The required prerequisite is the completion of the following courses prior to enrolling for the course unit: 721137S International Financial Reporting.

**Recommended optional programme components:**

Not applicable.

**Recommended or required reading:**

Penman, S. A. (2004). Financial Statement Analysis and Security Valuation. McGraw-Hill; research articles; and cases.

[Check the availability of course material from this link.](#)

**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:**

Not applicable.

**Other information:**

**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

Ei opintojaksokuvauksia.

*Investments: Select five of these courses*

**721383S: Asset Pricing, 6 op**

**Voimassaolo:** 01.08.2008 -  
**Opiskelumuoto:** Advanced Studies  
**Laji:** Course  
**Vastuuyksikkö:** Oulu Business School  
**Arvostelu:** 1 - 5, pass, fail  
**Opettajat:** Juha Joenväärä  
**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 will be able to state the theoretical foundations for asset pricing models, derive the stochastic discount factor and asset pricing models, empirically test these models using various methods, describe and empirically show evidence of some stylized facts of stock returns, analyze mutual fund performance and performance persistence.

**Contents:**

Market completeness, law of one price and discount factors, CAPM and various factor models, cross-sectional regressions, joint tests of significance, Fama-MacBeth procedure, mutual funds' alphas and persistence.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

36 hours lectures and exercises. Independent studying 124 hours.

**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:**

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**Recommended optional programme components:**

-

**Recommended or required reading:**

Lecture notes; Cochrane: Asset Pricing; other assigned literature.  
[Check the availability of course material from this link.](#)

**Assessment methods and criteria:**

Final exam.

**Grading:**

1-5.

**Person responsible:**

Juha Joenväärä

**Working life cooperation:**

-

**Other information:**

The number of students is limited.

**721952S: Portfolio Management, 6 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu Business School

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Hannu Kahra

**Opintokohteen kielet:** English

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

6 ECTS credits / 160 hours of work.

**Language of instruction:**

English.

**Timing:**

Periods A-B

**Learning outcomes:**

Upon completion of the course, the student is able to apply the basic quantitative methods of modern portfolio management in practice. The student is able to explain the main challenges in portfolio management, and to implement portfolio management strategies.

**Contents:**

Mean-variance optimization, expected utility maximization, estimation error, risk-based asset allocation, ETFs and futures instruments.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

36 hours lectures and exercises. Independent studying and group work 124 hours.

**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:**

Roncalli, Thierry, Introduction to Risk Parity and Budgeting, Chapman & Hall/CRC, 2014; Pfaff, Bernhard, Financial Risk Modelling and Portfolio Optimization with R, Wiley 2013. Ilmanen: Expected Returns: An Investor's Guide to Harvesting Market Rewards, Wiley.

[Check the availability of course material from this link.](#)

**Assessment methods and criteria:**

Assessment methods include a portfolio management project. Each student implements his/her personal portfolio management based on modern portfolio choice techniques.

**Grading:**

1-5.

**Person responsible:**

Hannu Kahra

**Working life cooperation:**

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**Other information:**

The number of students is limited.

**721956S: Alternative Investments, 6 op**

**Voimassaolo:** 01.08.2010 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu Business School

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Juha Joenväärä

**Opintokohteen kielet:** English

**ECTS Credits:**

6 ECTS credits / 160 hours of work.

**Language of instruction:**

English.

**Timing:**

Period D.

**Learning outcomes:**

Upon completion of the course, the student knows the recent stylized facts about the performance of alternative asset classes. The student understands the risk and return characteristics of alternative asset classes and how to use alternative assets in portfolio management.

**Contents:**

Tradeable instruments, commodities, hedge funds, real estate.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

36 hours lectures and exercises. Independent studying 124 hours.

**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:**

Material provided by the instructors.

**Assessment methods and criteria:**

Exam.

**Grading:**

1-5.

**Person responsible:**

Juha Joenväärä

**Working life cooperation:**

-

**Other information:**

The number of students is limited.

**721954S: Financial Econometrics, 6 op****Opiskelumuoto:** Advanced Studies**Laji:** Course**Vastuuyksikkö:** Oulu Business School**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Hannu Kahra**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 knows how to estimate and evaluate univariate and multivariate models for asset returns and return volatilities, how to estimate and evaluate asset pricing models using the Generalized Method of Moments (GMM). The student learns that return predictability is the major stylized fact driving modern finance.

**Contents:**

ARIMA and VAR-models, unit roots and cointegration, univariate and multivariate GARCH, Generalized Method of Moments (GMM), estimation of the consumption based CAPM (CCAPM) using GMM, predictability of asset returns, volatilities and return covariances/correlations.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

36 hours lectures and exercises. 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:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

Lecture notes and the material provided by instructor.

**Assessment methods and criteria:**

Final exam (70%) and exercises (30%).

**Grading:**

1-5.

**Person responsible:**

Hannu Kahra

**Working life cooperation:**

-

**Other information:**

The free R statistical program is used in the demonstrations and exercises. The number of students is limited.

**721962S: International Finance, 6 op****Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Advanced Studies**Laji:** Course**Vastuuyksikkö:** Oulu Business School**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Hannu Kahra**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 has become familiar with currency markets and foreign exchange, interest rate risk, arbitrage, spot and forward markets and hedging.

**Contents:**

Introduction to international finance; currency markets; forward exchange rates for currency; currency derivatives; and exchange risk exposure, risk management, and coverage of the global banking crises and the European sovereign crises.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

36 hours lectures and exercises. 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:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

Sercu: International Finance: Theory into Practice (required), Pilbeam: International Finance (recommended), lecture notes and the material provided by the instructor

**Assessment methods and criteria:**

Final exam.

**Grading:**

1-5

**Person responsible:**

Hannu Kahra

**Working life cooperation:**

No

**Other information:**

The number of students is limited.

**721959S: Empirical Research in Finance II, 6 op**

**Voimassaolo:** 01.08.2014 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu Business School

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Juha Joenväärä

**Opintokohteen kielet:** English

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

6 credits / 160 hours of work

**Language of instruction:**

English

**Timing:**

Periods C-D

**Learning outcomes:**

Upon completion of the course, the student is able to formulate an empirical research design for a specified research problem in finance. The student knows the essential methods of measurement in empirical finance research. The student is able to independently analyze empirical financial data using SAS and R.

**Contents:**

Empirical research design, building and analyzing empirical data matrices, reporting of estimation results, risk estimation, portfolio optimization, portfolio performance measurement, SAS-programming, R-programming.

**Mode of delivery:**

Face-to-face teaching.

**Learning activities and teaching methods:**

60 hours lectures and exercises. Independent studying 100 hours.

**Target group:**

Major students in finance.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

Materials provided by instructors.

**Assessment methods and criteria:**

The required minimum participation rate is 80% (48 hours). The student has to 1) conduct an empirical analysis and write a short research report of an assigned research topic in finance, and complete a home exercise in both 2) SAS-programming and 3) R-programming. The three assignments are graded with the scale 1-5. The final grade of the course is the arithmetic mean of the three subgrades.

**Grading:**

1-5

**Person responsible:**

Jukka Perttunen

**Working life cooperation:**

No

**Other information:**

The number of students is limited.

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Diploma thesis

**Vastuuyksikkö:** Oulu Business School

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish, English

**ECTS Credits:**

30 ECTS credits / 800 hours of work.

**Language of instruction:**

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.

**Mode of delivery:**

Face-to-face tutoring.

**Learning activities and teaching methods:**

Seminar sessions 20h, one-on-one discussions with the instructor 20h, self-study 760h.

**Target group:**

Students majoring in finance.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Participation in seminars, accepted research reports.

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

1-5.

**Person responsible:**

Professor Jukka Perttunen and Senior Lecturer Hannu Kahra

**Working life cooperation:**

-

**Other information:**

The number of students is limited.