Opasraportti


The degree programme in Marketing at the Oulu Business School educates experts for the demanding needs of industrial marketing. Our education is based on high quality international research focusing on two main areas. The first area is business to business marketing, especially business relationships and value creating networks. The second area is concerned with electronic business. Both areas are studied with an international viewpoint, assuring the managerial relevance of our research, as well as covering the greatest changes in the business environment; globalisation, digitalization of business, and co-creation of value.

We work in close co-operation with the business community, and combine theory and practise both in teaching and research. A proof for the successful co-operation is the successful transition of our students to professional working life after graduation. Some of our former students work as marketing directors, CEO’s, researchers, consultants, key account managers and product managers. Our academic global co-operation network also provides many opportunities to our students who are planning an international career.

Course Structure Diagram 2013-2014

Bachelor of Science (Econ. & Bus. Adm.) in Marketing

Master of Science (Econ. & Bus. Adm.) in Marketing

Degree structure

Basic studies (ECTS):

721409P Johdatus markkinointiin (Principles of Marketing) 5

721424P Business to Business Marketing 5

721419P Kuluttajakäyttäytyminen (Consumer Behavior) 5

721412P Product and Market Strategies 5

721704P Business Logistics 5

Intermediate studies:
In addition to basic studies:

721418P Markkinoinnin seminaari (Seminar in Marketing) 10

In addition, at least 25 ECTS worth of the following:
721413A Yrityksen liikesuhteiden hallinta (Managing Business Relationships) 5

721415A Industrial Sales Management 5

721423A Kilpailukykyinen hinnoittelu (Pricing Strategies) 5

721427A Brändijohtaminen 5

721429A Informaativerkostojen markkinat (Markets of Network Industries) 5

721430A Markkinoinnin yritysprojekti (Firm Project in Marketing) 5

721004A Additional studies in marketing 5

721241A Harjoittelu (Internship) 5

Advanced studies:

721430S Master's Thesis in Marketing 30

721460S Markkinoinnin teoriat (Marketing Theory) 6

721462S Verkostojen teoria (Network Theory) 6

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

721414S Purchasing and Supplier Relationships 6

721675S Supply Chain Management 6

721472S Digital Marketing 6

721470S Markkinoinnin organisointi (Organising Marketing) 6

721471S Current Issues in Service Marketing 6

721336S Special Issue 6

Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja -jaksot
Opintojaksojen kuvaukset

Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

721004A: Additional Studies in Marketing, Intermediate Level, 0 op

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

ECTS Credits:
5 ects.

Language of instruction:
To be agreed with the responsible person.

Timing:
To be agreed with the responsible person.

Learning outcomes:
To be agreed case-specifically.
Contents:
This course may consist either of a pre-defined written report or of equivalent studies completed in other faculties or universities.

Mode of delivery:
To be agreed case-specifically with the responsible person.

Learning activities and teaching methods:
To be agreed case-specifically.

Target group:
Marketing majors who have completed the basic studies in marketing.

Prerequisites and co-requisites:
Basic studies in marketing

Recommended optional programme components:
Basic studies in marketing.

Recommended or required reading:
To be agreed case-specifically with the responsible person.

Assessment methods and criteria:
To be agreed case-specifically with the responsible person.
Read more about assessment criteria at the University of Oulu webpage.

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

Person responsible:
Doctoral candidate Ilkka Ojansivu

Working life cooperation:
-

Other information:
Optional course for the marketing students.

721427A: Brand Management, 5 op

Voimassaolo: 01.08.2007 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Saila Saraniemi, Minna Törmälä
Opintokohteen kielet: Finnish

ECTS Credits:
5 ects.

Language of instruction:
Finnish.

Timing:
Autum, Period B.

Learning outcomes:
Upon completion this intensive course, the students are able to systematically plan, analyze and identify diversified brand strategies. Students are able to assess the brand value for a customer, for a firm and for stakeholders. The students are able to argument and discuss the brand phenomenon and related concepts (image, identity, reputation). In addition, the students are able to identify and analyze different phases of branding process and identify different research possibilities within the brand phenomenon. Accordingly the students are able to apply brand perspective as a strategic asset of businesses.

Contents:
The aim is to increase the student’s knowledge of the brand phenomenon wide-ragingly and from contemporary perspectives. The lectures include the following themes: the origin of brand phenomenon and the development of
brand research, branding strategies, brand value and brand equity, network perspective in branding, rebranding and brand as judicial issue. In addition, different branding contexts are examined, e.g. place branding, SME branding, services branding and digital branding.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Preparation for and passing a pre-exam based on three articles (will be announced in August at the faculty website) (40 h), introductory and visiting lectures (10 h), reading the arranged articles (28 h), group presentation, attending group presentations, guided discussions and evaluation (15 h) and learning diary (40 h).

**Target group:**
Students who have completed the basic studies of marketing, primarily those majoring in marketing.

**Prerequisites and co-requisites:**
It is recommended that the student has completed the basic studies in marketing and the study unit Integrated Marketing Communications (721416A).

**Recommended optional programme components:**
Integrated Marketing Communications (721416A).

**Recommended or required reading:**
Articles determined for the pre-exam and an article collection announces at the beginning of the course. Articles for the pre-exam:

**Assessment methods and criteria:**
Assessment will be at three stages: pre-examination, group work and its presentation during the course and a learning diary will each comprise a third of the course grade. The assessment of the course is based on the learning outcomes of the course unit.

Read more about assessment criteria at the University of Oulu webpage.

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

**Person responsible:**
University lecturer Saila Saraniemi and doctoral student Minna Mäläskä.

**Other information:**
The number of students is limited to 70.

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**721704P: Business Logistics, 5 op**

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Basic Studies
**Laji:** Course
**Vastuuysikkö:** Oulu Business School
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Jari Juga
**Opintokohteen kielet:** English

**Leikkaavuudet:**
ay721704P Business Logistics (OPEN UNI) 5.0 op
721704A Business Logistics 5.0 op

**ECTS Credits:**
5 ECTS credits / 133 hours of work.

**Language of instruction:**
English.

**Timing:**
Autumn semester/ period B.
Learning outcomes:
The student recognizes how logistics contributes to business competitiveness and is able to specify central planning principles in logistics management. The student can describe interdependencies between logistics activities and solve basic problems in materials management and inventory control.

Contents:
Topics include logistics tradeoffs, logistics service level, transport and inventory management, logistics performance, basic production planning and order scheduling, just-in-time logistics, and green logistics.

Mode of delivery:
Face-to-face teaching.

Learning activities and teaching methods:
Lectures (30 h), including basic calculations and exercises in class. Independent reading of course literature (73 h) and self-study of calculation problems (30 h).

Target group:
Bachelor-level students.

Prerequisites and co-requisites:
- 

Recommended optional programme components:
This study unit is also offered in the Open University (lectures in Finnish).

Recommended or required reading:

Check availability from here.

Assessment methods and criteria:
Exam (course book, lectures, basic calculation problems).
Read more about assessment criteria at the University of Oulu webpage.

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

Person responsible:
Professor Jari Juga.

Working life cooperation:
- 

Other information:
- 

721063A: Business Research Methods, 8 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Jouni Juntunen
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
8 ects

Language of instruction:
Finnish

Timing:
Autumn semester/ periods A-B

Learning outcomes:
After this course, the students will be able to plan and execute quantitative and qualitative research to understand and solve scientific problems in the business context. In addition, the students will be able to create questionnaire, collect data and analyze it with suitable statistical software. Further, the students will also be able to collect
qualitative data and analyze it with suitable statistical software. Students will be capable to use methodological concepts and evaluate researches from scientific perspective.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Preparing for and completing the pre-exam (40h), lectures and computer class instruction 45 h (MS EXCEL, SPSS ja NVivo softwares), study diaries (45 h) and practical work (83h)

**Target group:**
Mandatory for major subjects of marketing, management and international business

**Prerequisites and co-requisites:**
Pre-exam. Wilson, J. Essentials of Business Research, Sage Publications 2010. Check the availability [here](#)

**Recommended optional programme components:**
Business Research methods study unit is recommended before the Seminar (721517A, 723020A tai 721418A).

**Recommended or required reading:**
Pre-exam book: Wilson, J. Essentials of Business Research, Sage Publications 2010; and other material announced in the lectures.

**Assessment methods and criteria:**
Pre-exam, study diaries and a class project. Read more about [assessment criteria](#) at the University of Oulu webpage.

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

**Person responsible:**
Dr. Jouni Juntunen

**Working life cooperation:**
No.

**Other information:**
The number of students is limited.

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**721424P: Business to Business Marketing, 5 op**

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuysikkö:** Oulu Business School

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

**Opintokohteen kielet:** English

**Leikkaavuudet:**
ay721424P Business to Business Marketing (OPEN UNI) 5.0 op

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**
5 ECTS credits/ 133 hours of work.

**Language of instruction:**
English.

**Timing:**
Spring semester/ period D.

**Learning outcomes:**
After having passed this course, students are able to compare business-to-business marketing and consumer marketing and to apply principles of organizational buying behavior in their work. In addition, students will have an ability to assess and communicate relevant issues in the strategy formation in business-to-business environment and an ability to evaluate and explain strategic and operational challenges related to distribution choices. These capabilities are shown by applying theoretical issues to the real-life case organization in the group work and by explaining relevant issues in the exam.

**Contents:**
1) Characteristics of Business-to-Business marketing and value creation; 2) understanding organizational buying behavior; 3) current trends in business-to-business markets and collaboration; 4) relationships and networks in industrial markets; 5) assessing marketing opportunities and strategies and 6) distribution in industrial context.

**Mode of delivery:**
Face-to-face teaching.

**Learning activities and teaching methods:**
During the period D there will be 24 h lectures including discussions, group works and mini-cases. Theoretical issues learnt during the lectures and from the course book will be applied to the real-life case organization in three different phases (50 hours). The final exam will include all parts of the course: Lectures, literature and group work (59 hours).

**Target group:**
Students who are studying marketing as a major or minor subject.

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
-

**Recommended or required reading:**
Check availability from here.

**Assessment methods and criteria:**
An exam after lecture period and group works at three stages during the lectures.

Read more about assessment criteria at the University of Oulu webpage.

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

**Person responsible:**
Professor Pauliina Ulkuniemi

**Working life cooperation:**
-

**Other information:**
The number of students is limited.

721419P: Consumer Behavior, 5 op

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuysikkö:** Oulu Business School

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

**Opettajat:** Annu Perttunen

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**
ay721419P  Consumer Behavior (OPEN UNI)  5.0 op

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**
5 ECTS credits / 133 hours of work

**Language of instruction:**
Finnish.

**Timing:**
Spring semester/ period D.

**Learning outcomes:**
Upon completion of the course, students have deepened their theoretical understanding of consumer behavior and internal and external factors affecting it. Students can apply different theories and conceptions to their business environment and evaluate the relevance and usefulness of such theories in their Master’s Thesis if needed.

**Contents:**
Lectures and related material include the following themes: 1) consumer decision-making process, 2) personality and attitude theories, 3) environmental impacts, 4) reference groups, 5) communication, and 6) different modes of consuming. Students will become familiar with scientific journals of consumer behavior.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
During the period D there will be 24 hours lectures and a group work (45 h). In addition, independent reading of the textbooks and related material for the exam (64 h).

Target group:
Students who are studying marketing as a major or minor subject.

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

Recommended or required reading:

Check availability from here.

Assessment methods and criteria:
Examination and exercise. The assessment of the course unit is based on the learning outcomes of the course unit.

Read more about assessment criteria at the University of Oulu webpage.

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

Person responsible:
Postdoctoral researcher Mari Juntunen.

Other information:
The number of students is limited.

721471S: Current Issues in Service Marketing, 6 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Teeta Palo
Opintokohteen kielet: English
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
6 ECTS credits / 160 hours of work.

Language of instruction:
English.

Timing:
Spring semester / period C.

Learning outcomes:
Upon completion of this course, students are able to analyse distinctive and new ways of marketing thinking that are needed in service economies. In addition, students are able to compare and assess different service marketing theories. Students are able to select appropriate theories for creating strategies and business models in diversified cases of service marketing. After passing the course, students have competencies to evaluate and argue the relevance and usefulness of the theories in their Master’s Thesis work.

Contents:
Themes covered in this course are 1) Service Logic for Marketing by Nordic School approach, 2) Service-Dominant Logic for Marketing (Vargo & Lusch, 2008) including different value concepts, roles in co-creation as
well as interaction and relationship marketing perspectives on services. Additionally, 3) relevant issues for Service Marketing from the field of SSME (Services Sciences, Management, and Engineering) including service experience, service design and modularity, and service supply chain will be discussed. The course takes both b2b and consumer perspectives through emphasizing interdisciplinary focus to current service marketing issues.

**Mode of delivery:**
Face-to-face teaching.

**Learning activities and teaching methods:**
Students have to attend the pre-exam (40h) in period B. During period C there will be lectures (24h) and group work with a related debate (16h). Independent work of students includes independent reading of the material for the article analyses from selected two themes of the course and an individual learning diary (80h).

**Target group:**
Students who have a Bachelor's Degree and major in marketing.

**Prerequisites and co-requisites:**
In order to participate in the course, a pre-exam should be passed (from book Grönroos, C., 2007, Search of a New Logic for Marketing. Foundations of Contemporary Theory. John Wiley & Sons. Ltd). The pre-exam will be held during period B, please follow the exam list on the Faculty’s web page.

**Recommended or required reading:**

**Assessment methods and criteria:**
Assessment will be at three stages. Pre-examination will determine 20% of the grade. The active participation and discussion during the course that include 80% presence required and group work with debate will determine 30% of the grade. The assessment of individual article analyses and learning diary forms 50% of the grade. Read more about [assessment criteria](#) at the University of Oulu webpage.

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

**Person responsible:**
Doctoral student Teea Palo.

**Working life cooperation:**
-

**Other information:**
The number of students is limited.

721472S: Digital Marketing, 6 op

**Voimassaolo:** 01.08.2011 -
**Opiskelumuoto:** Advanced Studies
**Laji:** Course
**Vastuuysikkö:** Oulu Business School
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Salo, Jari Tapani
**Opintojen kielet:** English
**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**
6 ECTS credits / 160 hours of work

**Language of instruction:**
Finnish

**Timing:**
Spring semester/ period D.

**Learning outcomes:**
Upon completion of the course, students have deepened their theoretical understanding of digital marketing and how in different organizational contexts digital marketing is managed. In addition, student is able to provide some elementary measures for digital marketing in order to trace their effectiveness and efficiency. They can critically apply different theories and conceptions of digital marketing to their business environment. They are able to analyze the underlying logic of different types of digital marketing tools, campaigns and concepts and manage them accordingly. After passing this course, students are capable to evaluate and argue the relevance and usefulness of such theories in their Master’s Thesis when needed.

**Contents:**
Lectures and related material include the following themes: 1) basic concepts of digital marketing are introduced and different schools of thought are presented, 2) different tools of digital marketing are introduced (SEO, SEA, newsletters, webpages, blogs, podcasts, SNS (Facebook, LinkedIn, Renren, Vkontakte, etc.) virtual worlds and other digital marketing tools such as smashups and location based digital services, 3) digital marketing campaigns and cases and 4) measurement and management of digital marketing.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
During the period D there will be 24 hours lectures and group work (50 h). In addition, independent reading of the articles and other related material for the exam (86 h).

Target group:
Students who have a Bachelor’s degree and major in marketing.

Prerequisites and co-requisites:
a Bachelor degree in marketing

Recommended optional programme components:
Before the course students should have Bachelor’s Degree, major in marketing.

Recommended or required reading:
Article collection, and other material appointed by the Professor as well as possible compendium can be downloaded from course website that is available in Optima. The final exam includes all the material given for the student.

Assessment methods and criteria:
Assessment will be at two stages. Group exercise conducted during the course will determine 30% of the grade and the final exam 70% of the grade. The assessment of the course unit is based on the learning outcomes of the course unit.

Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Professori Jari Salo.

Working life cooperation:
-

Other information:
The number of students is limited (30 persons).

721241A: Field Project, 5 op

Opiskelumoto: Intermediate Studies
Laji: Practical training
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Status:
Optional.
ECTS Credits:
5 ects.

Language of instruction:
Free.

Timing:
Free.

Learning outcomes:
The student gains work experience that is related to his/her studies and which supports career plans.

Contents:
Objective of the internship (field project) is to familiarize oneself with economic life, to create business contacts and to become acquainted for example with economic analysis or bearing of economic responsibility in practice. A suitable internship position involves, for example, performing the following tasks:
- production, analysis or interpretation of economic information
- writing reports on economic issues
- participating in economic research projects
- familiarizing oneself with accounting software
- being responsible for carrying out economic activities
- carrying out management responsibilities
- familiarizing oneself with economic life of foreign countries
- participating in making economic decisions
- conducting marketing research

Mode of delivery:

Learning activities and teaching methods:

Target group:

Prerequisites and co-requisites:

Recommended optional programme components:
No

Recommended or required reading:

Assessment methods and criteria:
For internship approval the following documents should be submitted to Oulu Business School's study office:

a) official certificate from the employer
b) at least three-page long report, containing:
   - detailed and clear description of tasks carried out
   - description of working methods
   - written material produced during the internship
   - self-assessment of learning during the internship
   - possible supplementary attachments

Please label the documents as "Internship report".

Read more about assessment criteria at the University of Oulu webpage.

Grading:
Pass/fail

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

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**721430A: Firm Project in Marketing, 5 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Oulu Business School

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

**Opettajat:** Saila Saraniemi, Jari Juga

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**
5 ECTS/ 133 hours of work

**Language of instruction:**
Finnish.

**Timing:**
Autumn semester/ periods A-B.

**Learning outcomes:**
Upon completion of this course a student is able to plan and organize a marketing project originating from real life needs. Students are able to work in groups, identify and divide roles of project work and apply project management skills to practical firm projects. Students are able to implement and solve a firm-based problem in a fixed schedule. In addition, a student is able to present and report different phases of the project orally and in
writing and use project management software as a tool for describing, planning, follow-up and reporting on the project.

Contents:
The aim is to increase the student’s understanding of implementation of business life originated projects. During the study unit the following areas are covered: project management skills, project planning, implementation, follow-up and reporting on the project.

Mode of delivery:
Face-to-face teaching and project work in groups.

Learning activities and teaching methods:
Preparation for and passing an exam (40 h) during period A, introductory lectures and project management software exercises (12 h) during period B, planning, implementing, auditing and reporting (orally and in writing) on a business life originated project in groups (81 h) during period B.

Target group:
Marketing majors who have completed the basic studies in marketing.

Prerequisites and co-requisites:
Basic studies in marketing

Recommended optional programme components:
Basic studies in marketing

Recommended or required reading:
Book for the pre-examination: Risto Pelin: Projektihallinnan käsikirja, Projektijohtaminen Oy, 2002 or newer. Check the availability from here.

Assessment methods and criteria:
The assessment will be at four stages: pre-exam (10%), project work (20%), project report (30%), project results and outcome report for the commissioners (40%).

Grading:
The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail. In determining the assessment criteria the IPMA’s (International Project Management Association) principles for good practices were considered.

Person responsible:
University lecturer Saila Saraniemi, work life lecturer Sakari Nikkilä, professor Jari Juga and other visiting supervisors for the projects from the marketing department.

Working life cooperation:
Yes. The groups are working on a genuine marketing related development project in order to solve a business life problem. The project is directed by the firm’s operations. In addition, the project group regularly reports on their work to the executive group of the project, comprised of the persons in charge of the course together with the representatives of the firm.

Other information:
The number of students is limited.
Participating in Demola-projects is an optional possibility to complete the course. More information: oulu.demola.fi and University lecturer Saila Saraniemi.

721415A: Industrial Sales Management, 5 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Oulu Business School

Arvostelu: 1 - 5, pass, fail

Opettajat: Timo Pohjosenperä, Johnston Wesley

Opintokohteen kielet: English

Voidaan suorittaa useasti: Kyllä

ECTS Credits:
5 ECTS credits / 133 hours of work.

Language of instruction:
English.

Timing:
Autumn semester/ period A.
Learning outcomes:
Upon completion of the course, students are able to specify the principles of international industrial sales management on the basis of a relationship approach. In addition, students can illustrate and examine the sales force environment. Furthermore, students are able to plan sales and recruit, motivate, evaluate and supervise the sales force.

Contents:
Lectures and related material include the following themes: The selling process, industrial sales management, planning for sales, developing sales force.

Mode of delivery:
Face-to-face teaching.

Learning activities and teaching methods:
24 h lectures (and a computer simulation conducted in teams, 6h). Independent reading of the textbook and lecture material for the exam (103h)

Target group:
Students who have completed at least three courses in marketing.

Prerequisites and co-requisites:

Recommended optional programme components:
It is recommended that students have completed at least three courses in marketing before entering this course.

Recommended or required reading:
Check availability from here.

Assessment methods and criteria:
A computer simulation conducted in teams, and a literature examination.

Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Professor (Docent) in Industrial Marketing and Sales Wesley Johnston.

Working life cooperation:

Other information:
The number of students is limited.

721413A: Managing Business Relationship, 5 op

Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Hanna Komulainen
Opintokohteen kielet: Finnish

ECTS Credits:
5 ECTS credits / 133 hours of work

Language of instruction:
Finnish.

Timing:
Autumn semester/Period B.

Learning outcomes:
Upon completion of the course, students are able to identify networks as a context of managing business relationships. They are able to define and describe different theoretical approaches to business relationship management, e.g. relationship portfolios, key account management, value creation and development of relationships. In addition, students are able to apply theoretical concepts in analyzing business relationships and can suggest strategies to different types of business situations.
Contents:
Lectures and related material include the following themes:
1. Business relationships in the field of marketing
2. Networks as a context in managing business relationships
3. Customer/supplier portfolios and key account management
4. Conceptual models for analyzing business relationships
5. Value creation in business relationships

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 32 h, including group work (mini cases) 12 h, self-study 101 h (including an article analysis, learning diary and independent reading of the textbook and related material for the exam).

Target group:
Students completing Bachelor/Master of Science in Economics and Business Administration

Prerequisites and co-requisites:
The required prerequisite is the completion of at least three basic level courses in marketing prior to enrolling for the course unit.

Recommended optional programme components:
Three basic level courses in marketing.

Recommended or required reading:

Check availability from here.

Assessment methods and criteria:
Final exam and obligatory exercises. The assessment of the course unit is based on the learning outcomes of the course unit.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Postdoctoral researcher Hanna Komulainen.

Other information:
The number of students is limited to 70.

721460S: Marketing Theory, 6 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Tähhtinen, Jaana Marketta
Opintokohteen kielet: English
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
6 ECTS / 160 hours of work

Language of instruction:
Finnish.

Timing:
Spring semester/Period D.

Learning outcomes:
Upon completion of the course, students can compare different schools of marketing thought, classify studies into the schools, and explain the consequences of such fragmentation to marketing scholars. Students can choose a theoretical starting point and argue for the choices in their research.

**Contents:**
During the course e.g. the following issues will be dealt with:
- ways of classifying schools of marketing thought
- a closer look at one classification
- implications of the variety schools of thought
- a closer look at origins of a few schools
- how to make a theoretical contribution, and to assess the research outlets and aims.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
24 h classes, home exam & teamwork & independent reading of the textbooks 136 h.

**Target group:**
Students that have completed their Bachelor’s Degree, majoring in Marketing.

**Prerequisites and co-requisites:**
Students need to have completed Bachelor’s thesis or seminar in Marketing.

**Recommended optional programme components:**
Subject studies in Marketing.

**Recommended or required reading:**

Check availability from [here](#).

**Assessment methods and criteria:**
Self-assessment, home exam. See further instructions from detailed course description on web.

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

**Grading:**
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

**Person responsible:**
Professor Jaana Tähtinen.

**Working life cooperation:**
-

**Other information:**
The number of students is limited.

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**721429A: Markets of Network Industries, 5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Oulu Business School

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

**Opettajat:** Timo Koivumäki

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
5 ECTS credits/ 133 hours of work.

**Language of instruction:**
Finnish

**Timing:**
Spring semester/ period C.

**Learning outcomes:**
Upon completion of the course, the student is able to analyze the effects of the special characteristics (complementarity, consumption externalities, switching costs and lock in and economies of scale in production) on the market dynamics of network industries.

**Contents:**
We take a game theoretic approach to study dynamics of company structure, strategic decision-making and market development in network industries. We also focus on the effects of social interaction on consumers’ choices.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
12 hours of lectures, independent studying of course material (117h) and exam (4h)

**Target group:**
Students completing Bachelor/Master of Science in Economics and Business Administration

**Prerequisites and co-requisites:**
No

**Recommended or required reading:**
Check availability from [here](#).

**Assessment methods and criteria:**
The assessment of the course is based on the learning outcomes of the course unit. Course grade is determined based on the exam.

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

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

**Person responsible:**
Professor Timo Koivumäki

**Working life cooperation:**
No

**Other information:**
The number of students is limited.

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**721430S: Master's Thesis, Marketing, 30 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Diploma thesis

**Vastuuysikkö:** Oulu Business School

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

**Opintokohteen kielet:** Finnish, English

**ECTS Credits:**
30 ECTS/ 800 hours of work

**Language of instruction:**
Finnish.

**Timing:**
Autumn and Spring semester/ periods A-D.

**Learning outcomes:**
Upon completion of the Master’s Thesis, the student possesses the skills necessary to acquire independently scientific knowledge and communicate it in a convincing manner. During the process students have developed theoretical and practical expertise in a chosen area.

**Contents:**
This course is divided into three intensive seminar modules during which each student presents a thesis plan, theoretical framework, and manuscript.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
During the thesis work, students present three separate reports:
1) Thesis plan (2-3 pages)
2) Intermediate report/theoretical framework (30-40 pages)
3) Manuscript (60-80 pages)

The course begins with an introductory lecture already during the 4th year spring. The proceeding practices in the following stages are agreed upon during the first sessions in autumn. Students participate in seminars during the academic year, report the progression of the work in seminars and get guidance to proceed. Seminars are compulsory.
Target group:
Students completing their Bachelor's Degree, majoring in Marketing.

Prerequisites and co-requisites:
721418A Seminar in Marketing.

Recommended optional programme components:
721460S Marketing Theory

Recommended or required reading:
Instructions for thesis work –document at Faculty’s www-page. Students also register themselves to the course’s Optima –workspace, from where they will get information concerning the thesis and supervision.

Assessment methods and criteria:
See working methods.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Professors in Marketing.

Other information:
The number of students is limited.

721462S: Network Theory, 6 op

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

ECTS Credits:
6 ECTS credits / 160 hours of work

Language of instruction:
Finnish.

Timing:
Spring semester/Period C.

Learning outcomes:
Upon completion of the course, students have deepened their theoretical understanding of business networks. They are able to explain, why the different kinds of networks are important in business life and how they are able to coordinate them considering strategic goals of the company. They can critically apply different theories and conceptions to their business environment. They are able to analyze the underlying logic of different types of strategic nets, learning and knowledge transfer within the network likewise sources of conflict and conflict resolution strategies. After passing this course, students are capable to evaluate and argue the relevance and usefulness of such theories in their Master’s Thesis when needed.

Contents:
Lectures and related material include the following themes:
1) Principles of network thinking and basic concepts;
2) Networks and strategic thinking;
3) Different kind of strategic nets, their management mechanisms and capabilities needed (from subcontractor networks to development and innovation networks);
4) Learning and knowledge in the network context and
5) Sources of conflict in networks and conflict resolution.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Students have to attend the pre-exam (40 h). During the period C there will be 24 hours lectures and additional group work (article analysis and mini cases, 16 h). A group work and related presentation (30 h). In addition, independent reading of the textbooks and related material for the exam (50 h).
Target group:
Students who have Bachelor’s Degree, major in marketing.

Prerequisites and co-requisites:
In order to participate the course, a pre-exam should be passed (from book Håkansson, H. & Snehota, I eds: Developing Relationships in Business Networks, 1995). Detailed information on the pre-exam will be given during the period B on Faculty’s web page.

Recommended optional programme components:
Before the course students should have Bachelor’s Degree, major in marketing.

Recommended or required reading:
Check availability from here.

Assessment methods and criteria:
Assessment will be at three stages. Pre-examination will determine 20% of the grade. The group work conducted during the course will determine 30% of the grade and the final exam 50% of the grade. The assessment of the course unit is based on the learning outcomes of the course unit.

Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Associate professor Satu Nätti.

Working life cooperation:
-

Other information:
The number of students is limited.

ECTS Credits:
6 ECTS credits / 160 hours of work

Language of instruction:
Finnish.

Timing:
Fall semester /period B.

Learning outcomes:
Upon completion of the course, the student will be able to organize different marketing tasks both in strategic and operative levels. The student is able to analyze the role of marketing and organize marketing in different sized organizations and in different organization forms. The student pays attention to the cooperation between different functional units as well as to knowledge sharing in organizations. The student identifies the principles of developing key account management system from the viewpoints of structure, knowledge sharing, and key account manager.

Contents:
Lectures and presentations of course assignments will include following themes:
1) Organizing marketing in small firms,
2) The role of internal integration and knowledge sharing in managing customers,
3) The structure of key account management systems (e.g. KAM and KAM teams),
4) The capabilities of a key account manager,
5) Customer knowledge management,
6) Special issues in organizing marketing in different contexts.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
The course consist of compulsory lectures, including group work presentations (24h), preparation for the lectures (12h), group work (80h), preparation for the exam and independent study (40h) and exam (4h). Introductory lectures will be held in the beginning of period B and presentations of course assignments in the end of period B.

**Target group:**
Students majoring in Marketing

**Prerequisites and co-requisites:**
Seminar in Marketing (721418A)

**Recommended optional programme components:**

**Recommended or required reading:**
Article collection and lecture material.

**Assessment methods and criteria:**
Assessment will be at two stages. The group work conducted during the course will determine 50% of the grade and the final exam 50% of the grade. The assessment of the course unit is based on the learning outcomes of the course unit.

Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

**Person responsible:**
Doctoral student Elina Pernu.

**Working life cooperation:**

**Other information:**
The number of students is limited.

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**721423A: Pricing Strategies, 5 op**

**Opiskelumuoto:** Intermediate Studies
**Laji:** Course
**Vastuuysikkö:** Oulu Business School
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Pekkarinen, Saara Marketta
**Opintokohteen kielet:** Finnish
**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**
5 ECTS/ 133 hours of work

**Language of instruction:**
Finnish.

**Timing:**
Spring semester/Period D.

**Learning outcomes:**
Upon completion of this course, students are able to identify and assess factors determining pricing decisions, distinguish the key pricing strategies and analyze them. The students are able to utilize pricing strategies based on costs, differentiation from competitors and customer value for pricing products, services and solutions as well as compare different models in relation with the company’s profitability and competitiveness.

**Contents:**
Pricing decisions and strategies in marketing, approaches to different pricing situations in the consumer and business markets, customer experienced value, competition and value differentiation as well as costs as bases for pricing.
Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
24 h lectures including visiting lecturers. Practical work implemented as team work during period D (24 h), and studying required reading and lecture material for the final exam and passing it (85 h).

Target group:
Students who have completed the basic studies of marketing, primarily those majoring in marketing.

Prerequisites and co-requisites:
It is recommended that the student has at least completed the study units Principles of Marketing (721409P) and Product and Market Strategies (721412P)

Recommended optional programme components:
Principles of Marketing (721409P) and Product and Market Strategies (721412P)

Recommended or required reading:

Check availability from here.

Assessment methods and criteria:
Assessment will be at three stages. A team work completed during the course comprises 40% of the grade, student’s self-assessment of learning outcomes 10% and the final exam 50%. The assessment of the course is based on the learning outcomes of the course unit.

Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Associate professor Saara Pekkarinen.

Working life cooperation:

Other information:
The number of students is limited to 100.

721409P: Principles of Marketing, 5 op

Opiskelumuoto: Basic Studies
Laji: Course
Vastuuyksikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Salo, Jari Tapani
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay721409P Principles of Marketing (OPEN UNI) 5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:
5 ECTS credits / 138 hours of work

Language of instruction:
Finnish.

Timing:
Autumn semester/Period A.

Learning outcomes:
Upon completion of this course, students should be able to 1) understand the basic concepts of marketing, 2) identify different context for marketing and use marketing concepts for favorable outcomes 3) identify PEST and other issues influencing marketing activities and markets 4) understand marketing as a process starting from planning and ending to control / management of the process.

Contents:
During the course, following themes will be discussed: 1) marketing as science and practice, 2) definitions of marketing 3) marketing strategy and analysis, 4) marketing mix, 5) segmenting, targeting and positioning, 6) marketing in different contexts, 7) market analysis and new product/service/idea/solution development, 8) distribution, 9) planning, implementation and control of marketing process

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
30 hours of lectures, exam (4 h), independent reading of the textbook and articles (54 h), exercises (50 h).

Target group:
Students who are studying marketing as a major or minor subject.

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

Recommended or required reading:

Check availability from here.

Assessment methods and criteria:
Examination and exercise.

Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Professori Jari Salo

Working life cooperation:
-

Other information:
The number of students is limited to 200 enrolled students. Marketing students are selected first and then course is filled up to 200.

721412P: Product and Market Strategies, 5 op

Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Ilkka Ojansivu
Opintokohteen kielet: Finnish

Leikkaavuudet:
ay721412P Product and Market Strategies (OPEN UNI) 5.0 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:
5 ECTS credits / 133 hours of work

Language of instruction:
Finnish.
Timing:
Autumn semester/Period A.

Learning outcomes:
After having passed this course, students are able to identify the concepts and tools linked to product and market strategies. The course improves students’ ability to evaluate different product and market situations among industries and propose solutions to strategic product/market decisions. Furthermore, students are able to explain the content and stages of the value delivery process.

Contents:
1) Discovering the required value, 2) Developing a suitable customer offering, 3) Delivering the value 4) Communicating the value

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
27 h lectures, related discussions and group works, case exercise with both written and verbal part (62 h), case presentations (14 h) and independent reading of the textbooks and related material (20 h). During the course students will work in small groups and meet regularly in order to solve a marketing challenge proposed by the case company (case company is the same for all groups). Problem based learning (PBL) method will be applied and students play different roles to simulate tasks of the real life marketing professionals. Relating to these roles, students will write a learning diary (10 h). In the end of the course students will return a written report as a solution for the marketing challenge and presents it to other students.

Target group:
Students who are completing major/minor in marketing

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

Recommended or required reading:

Assessment methods and criteria:
Lectures and case exercise. The written part of the case exercise will determine 80% and the verbal part 20% of the grade. The assessment of the course unit is based on the learning outcomes of the course unit. Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Doctoral student Ilkka Ojansivu.

Working life cooperation:
-

Other information:
The number of students is limited.

721414S: Purchasing and Supplier Relationships, 6 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Advanced Studies
Laj: Course
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Pauliina Ulkuniemi
Opintokohteen kielet: English
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
6 ECTS credits / 160 hours of work.
Language of instruction:
English.

Timing:
Autumn semester/ period A.

Learning outcomes:
After passing the course, students are able to discuss and present issues related to industrial purchasing and can analyze business relationships from the buyer's point of view. They are able to find relevant information to work in assignments involving co-operation with the suppliers of products or services as they know the main purchasing tasks.

Contents:
The course introduces students with the importance of industrial purchasing in current business contexts. Different types of contexts where industrial purchasing takes place are considered, e.g. outsourcing in technology industries, global purchasing and buying business services. Topics also include purchasing processes, supplier relationships, understanding supply markets, evaluation of suppliers and interrelatedness of industrial marketing and purchasing.

Mode of delivery:
Face-to-face teaching.

Learning activities and teaching methods:
26 h lectures, case exercises (30 h), home exam (40 h), exam (4 h) and independent reading of the textbook and other material named by the Lecturer (60 h).

Target group:
Students who have a Bachelor's degree and major in marketing.

Prerequisites and co-requisites:
The recommended prerequisite is the completion of subject studies in marketing.

Recommended optional programme components:
-

Recommended or required reading:

Check availability from here.

Assessment methods and criteria:
Home exam (35%), case exercise (35%) and exam (40%).

Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Professor Pauliina Ulkuniemi.

Working life cooperation:
-

Other information:
The number of students is limited.

721418A: Seminar in Marketing, 10 op

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

ECTS Credits:
10 ECTS/ 267 hours of work

Language of instruction:
Learning outcomes:
Upon completion this course, the students will be able to independently write, comment and evaluate scientific text in marketing field. They are able to critically choose research materials, data, and documents as well as analyze, interpret, and modify scientific information. Students are able to discuss and make conclusions based on the gathered information and present (orally) and report (in writing) the implementation and results of the study.

Contents:
The Bachelor’s Thesis prepares the student for the Master’s Thesis work. During period C introductory lectures are held on the topic of “how to conduct a research” and students are required to prepare a research plan and present it in the Optima learning environment. This is followed by writing and presenting the Bachelor’s Thesis and acting as an opponent for other students (the reports during period D). Students also familiarize themselves on the fundamentals of scientific data acquisition and focal data bases (training organized by University library during the introductory lectures). In addition, as an integrated course, typically 900056A Taloustieteen tutkimusviestintä (2 ects) is conducted where especially themes of written and oral communication are covered.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Work on the Personal Study Plan (8 h), introductory lectures (12 h) with related group work (20 h). Writing and presenting a research plan in Optima learning environment (40 h) and seminar work: seminar sessions at the stages of second and final reports (20 h), preparing and presenting reports (162 h) and acting as an opponent at the final report stage (5 h).

Target group:
Students who have completed the basic studies of marketing, primarily those majoring in marketing.

Prerequisites and co-requisites:
The Research methods study unit is recommended before the seminar.

Recommended optional programme components:
In order to participate to the seminar the student must have completed the basic studies in marketing. In addition, the Research methods study unit is recommended before the seminar.

Recommended or required reading:
Handout and an article collection

Assessment methods and criteria:
Obligatory presence in introductory lectures and seminar sessions. Writing and presenting a research plan in the Optima learning environment. Writing and presenting the Bachelor’s Thesis and acting as an opponent to fellow students. A student is required to pass a maturity test related to the Bachelor’s Thesis presenting familiarity with the field of thesis and language skills in Finnish or Swedish. The assessment is based on seminar work and the learning outcomes of the course.

Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5. In the numerical scale zero stands for a fail.

Person responsible:
Senior lecturer Salla Saraniemi and other instructors in the Marketing Department.

Working life cooperation:
-

Other information:
The number of students is limited.
ECTS Credits:
Depends on the extent of the course.

Language of instruction:
Free.

Timing:
Free.

Learning outcomes:
To be specified later.

Contents:
Varied.

Mode of delivery:
Face-to-face teaching and/or independent studying

Learning activities and teaching methods:
Varied.

Target group:
Students with major subject.

Prerequisites and co-requisites:
Basic and Intermediate studies

Recommended optional programme components:
-

Recommended or required reading:
Varied

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

Read more about assessment criteria at the University of Oulu webpage.

Grading:
The course unit utilizes a numerical grading scale 1–5 or pass/fail. In the numerical scale zero stands for a fail.

Person responsible:
Professors.

Working life cooperation:
-

Other information:
Also courses taken in some other Finnish or foreign universities can be accepted as a completion of the course.

721675S: Supply Chain Management, 6 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Oulu Business School
Arvostelu: 1 - 5, pass, fail
Opettajat: Jari Juga
Opintokohteen kielet: English

ECTS Credits:
6 ECTS credits / 160 hours of work.

Language of instruction:
English.

Timing:
Spring semester/ period C.

Learning outcomes:
The student can analyze and assess strategic logistics issues from an integrated supply chain standpoint. The student is able to critically evaluate and interpret supply chain phenomena using analytical models and concepts.

**Contents:**
Definition and underlying theoretical models of supply chain management, as well as contemporary phenomena and supply chain improvement initiatives. Collaborative supply chain practices (ECR, CPFR, SCOR etc.) with a special emphasis on supply chain dynamics and enabling supply chain technologies and standards.

**Mode of delivery:**
Face-to-face teaching.

**Learning activities and teaching methods:**
Lectures (24 h), including student assignments in groups. Independent study of textbooks and course material (100 h) and preparation of class presentation (36 h).

**Target group:**
Master-level students.

**Prerequisites and co-requisites:**
Business Logistics (721704P) or equivalent.

**Recommended optional programme components:**
Logistics Systems Analysis (721724A).

**Recommended or required reading:**
Check availability from [here](#).

**Assessment methods and criteria:**
Exam.

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

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

**Person responsible:**
Professor Jari Juga.

**Working life cooperation:**
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**Other information:**
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