

Language Instruction English

Language Assignments and Evaluation Depending on student's program affiliation

Language Literature

Instruction

3 seminars, each of two days duration.

Evaluation Home exam (100%)

Support materials for examination

Grades Letter (A - F)

The course will give students an introduction to methods and theories on scientific enquiry including the debate on academic research versus applied, practical research. The relationship between philosophy of science perspectives and

selection of research methods will also be addressed. The course will focus on basic requirements for writing a master's thesis and be a support to the students in this endeavor.

### Content

The course will cover the following topics:

- The draids will consider the bilding dyna;

  Defining a research problem and designing the research project

  Analysing empirical material

  Theories on scientific enquiry and discussion of research methods

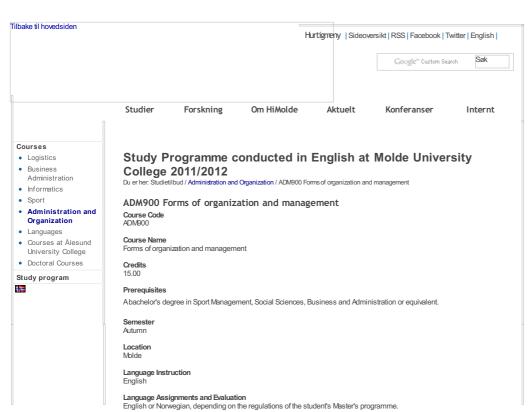
- Approaches to scientific enquiry within economics and social sciences, and the assumptions underlying these theories and methods.

  - Academic research and practical/applied research

### Literature

Recommended, a complete readinglist will be presented when starting the course.

Bortolotti, Lisa (2008) An Introduction to the Philosophy of Science. Camebridge: Polity Press McNamee, Mke. Ed. (2005) Philosophy and the Science of Exercise, Health and Sport. London:Routledge



Instruction Seminars

Evaluation Home exams

Support materials for examination

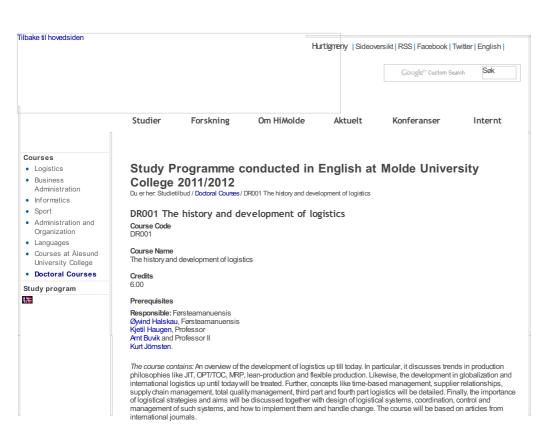
Grades Letter (A-F)

The students will acquire in-dept knowledge in the relationship between forms of organization and management and about change processes in organizations. Students should have knowledge of the most basic mainstream theories to be able to make their independent judgements of organization and management designs and processes

### Content

- Theories on organizational context and change
- Theories on organizational forms
- Theories on leadership and forms of management
- Theories on organizational change
- Theories on top management

Douma, S. & Schreuder, H. (2002). *Economic Approaches to Organizations*, 3rd edition. Prentice Hall Clegg, S., Komberger, M. & Pitsis, T. (2005). *Managing and Organizations*. Sage Compendium



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Irregularly

Language Instruction English

Language Assignments and Evaluation

Language Literature English

Instruction

Support materials for examination

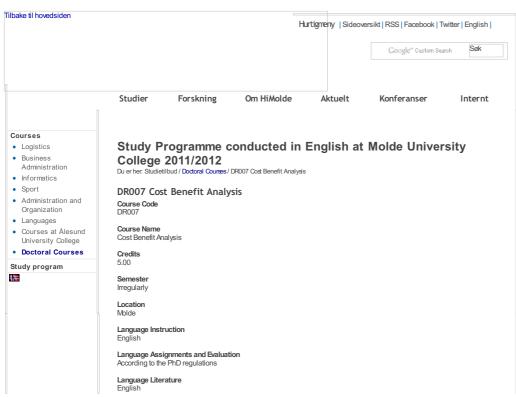
Grades Pass/fail

Content

The course contains: An overview of the development of logistics up till today. In particular, it discusses trends in production philosophies like JIT, OPT/TOC, MRP, lean-production and flexible production. Likewise, the development in globalization and international logistics up until today will be treated. Further, concepts like time-based management, supplier relationships, supply chain management, total quality management, third part and fourth part logistics will be detailed. Finally, the importance of logistical strategies and aims will be discussed together with design of logistical systems, coordination, control and management of such systems, and how to implement them and handle change. The course will be based on articles from international journals

### Responsible:

Øyvind Halskau, Associate Professor Kjetil Haugen, Professor Arnt Buvik, Professor Kurt Jörnsten, Professor II



Instruction
30 h lectures + student presentations. All lectures are mandatory.

Evaluation

Support materials for examination

Grades Pass/fail

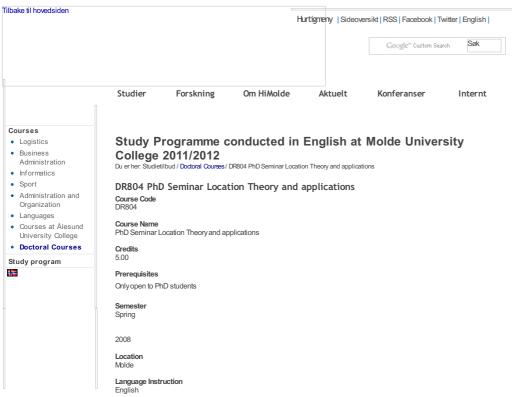
To learn about the state of the art in Cost-Benefit Analysis for various sectors.

### Content

There is an increasing need for evaluation and ranking of projects within constrained public budgets. CBA is one of the methods that are extensively used in economic impact assessment of projects in the public sector. Originally, it was developed and applied within transportation, but has gained increasing attention also within environmental assessment, health care and cultural economics. The course covers fundamental theoretical and empirical issues, and applies these to actual case studies. Decisions under uncertainty and real option theory are also covered.

Boardman AE et al (2006), Cost-benefit analysis : concepts and practice. Upper Saddle River, N.J. : Pearson Prentice Hall. ISBN: 978-0-13-143583-4

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**Language Assignments and Evaluation** English

Language Literature English

Instruction

Seminar week 23

**Evaluation**Grading based in the analysis of one or two articles

Support materials for examination

Grades

Letter (A-F)

The purpose of this doctoral seminar is to introduce the students with the basic models of location theory and to provide a number of applications arising in distribution management.

Part 1. Introduction to minimum distance models in planes and on networks. Derivation of the Hakimi property.

Part 2 (by Helena Fernandez, UPC Barcelona). The classical plant location problem. Models, variants and algorithms.

Part 3. Full coverage models, maximal coverage models. Static ambulance location problems. Dynamic ambulance relocation problems.

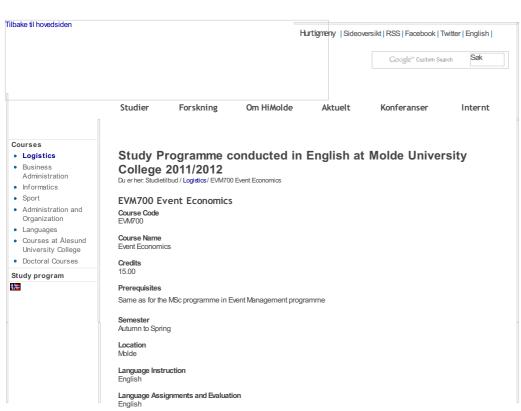
Introduction to flow capture models.

Part 4. Network design models arising in transportation and telecommunications. Metro location problems.

Districting problems

Part 5. Location problems with interactions: competitive location, the quadratic assignment problem. Location problems arising in container port management.

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### Instruction

### Evaluation

Students are required to write essays on assigned topics during the course. These shall be submitted during the course and will count for 60% of the final grade. The number of such essays will be defined by the lecturer during the course. There will also be a final written 4 hours exam which counts for 40% of the final grade.

### Support materials for examination

Grades Letter (A - F)

### Learning outcome

After completeing the course the student will

- understand the economic issues related to the hosting major events.
- be able to analyse the factors and mechanisms that influence the size and the distribution of the revenues and costs from
- be able to assess the regional perspective and impact of events

### Content

The following topics will be discussed in the course:
- The revenues of hosting events
- The costs of hosting event
- Non-monetary effects from hosting events

- Factors influencing the power between the stakeholders involved in the events
- Factors affecting the size and distribution of the events related effects Similarities and differences between one-off events and recurring events

### Literature

Andersson, Tommy, Rustad, Alf & Solberg, Harry Arne (2004); Local Resident's Monetary Evaluation of Sport Events, Managing Leisure. 9, pp. 145-158

Chappelet, Jean-Loup(2006): The economics of the IOC. In Handbook on the economics of sport. Ed. Wladimir Andreff & Stefan Szymanski. Cheltenham, Glos, Edward Elgar Publishing Ltd.

Crompton, J. L. (1995). Economic impact analysis of sports facilities and events: Eleven sources of misapplication. *Journal of Sport Management*, 9, 14-35.

Gratton, Chris & Preuss, Holger (2008) Maximizing Olympic Impacts by Building up Legacies. The International Journal of the History of Sport. 25 (14) pp. 1971–1987

Haugen, Kjetil K. (2004) The Performance-Enhancing Drug Game Journal of Sports Economics 5, pp. 67-86

Kesenne, S.: Do we need economic impact study or cost benefit analysis of sports events? *European Sport Management Quarterly*, 5 (2) pp 133 - 142

Mules, T. (1998). Taxpayer subsidies for major sporting events. Sport Management Review, 1, 25-43

Preuss, H. (2004). Calculating of the Regional Impact of the Olympic Games, European Sport Management Quarterly, 4(4), 234-

Preuss, H. (2005). The Economic Impact of Visitors at Major Multi-sport Events. European Sport Management Quarterly, 5(3), 283-305

Preuss, Holger (2007) The Conceptualisation and Measurement of Mega Sport Event Legacies. Journal of Sport & Tourism 12 (3-4), pp. 207-227

Preuss, Holger (2009) Opportunity costs and efficiency of investments in mega sport events. *Journal of Policy Research in Tourism, Leisure and Events* 1 (2), pp. 131–140

Preuss, Holger & Solberg, Harry Arne (2006). Attracting Major Sporting Events - The Role of Local Residents. *European Sport Management Quarterly*, 6 (4).

Preston Ian & Szymanski, Stefan (2003). "Cheating in Contests, Oxford Review of Economic Policy, Oxford University Press, vol. 19(4), pages 612-624

Simmons, Rob (2006). The demand for spectator sports. In *Handbook on the economics of sport*. Ed. Wladimir Andreff & Stefan Szymanski. Cheltenham, Glos, Edward Elgar Publishing Ltd

Solberg, Harry Arne (2006): The auctioning of TV sports rights. International Journal of Sports Finance, 1, pp. 33-45.

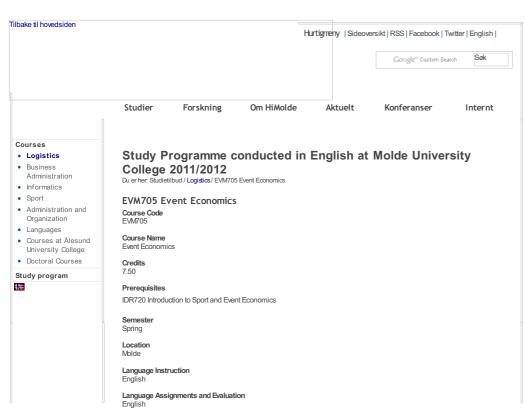
Solberg, Harry Arne, Andersson, Tommy D. & Shibli, Simon (2002): An exploration of the direct economic impacts from business travellers at world championships. Event Management, 9, pp. 20-28

Solberg, Harry Ame, Hanstad, Dag Vidar & Steen-Johnsen, Kari (2009). Recruiting and keeping sports fans – a comparative study of biathlon and cross-country skiing. International Journal of Sport Marketing & Sponsorship. 10(2)

Solberg, Harry Ame & Preuss, Holger (2007). Major sporting events and long-term tourism impacts. Journal of Sport Management, 21, pp. 215-236

Szymanski S, Alkinson, Susana Mourata, and Ece Ozdemiroglu (2008), 'Are We Willing to Pay Enough to 'Back the Bid' '7Valuing the Intangible Impacts of London's Bid to Host the 2012 Summer Olympic Games', *Urban Studies*, 2(45), pp.419-444;

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### Instruction

### Evaluation

Students are required to write essays on assigned topics during the course, counting 60 % of final grad. There will also be a final oral exam counting 40% of final grade

### Support materials for examination

Grades Letter (A - F)

### Learning outcome

- After completeing the course the student will
   understand the economic issues related to the hosting major events.
   be able to analyse the factors and mechanisms that influence the size and the distribution of the revenues and costs from
- be able to assess the regional perspective and impact of events

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- Similarities and differences between one-off events and recurring events

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 $Haugen, \textit{Kjetil K.} \ (2004) \ The \ Performance-Enhancing \ Drug \ Game \ \textit{Journal of Sports Economics} \ 5, pp. \ 67-86$ 

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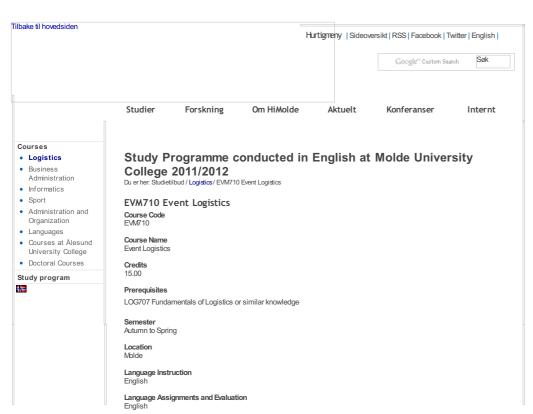
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### Instruction

3 hours of lecture per week

### Evaluation

Evaluation

4-hour individual written examination (Open book). Students are required to write one or more essays on assigned topics. These shall be submitted during the final examination and each of them will count for 10% of the final grade. The number of such essays may vary between years, and are defined by the lecturer during the course.

### Support materials for examination

Grades Letter (A - F)

### Learning outcome

After completeing the course the student will

- be able to apply classical (mass production) logistics theory into "extreme" project-oriented events.
- understand concepts like dynamic prising, project logistics and uncertainty related to events.
   be able to apply mathematical modelling and other quantitative methods to analyse Event Management issues.

### Content

The following topics will be discussed in the course:

- Forecasting Event demand, principles and practice
   Mathematical modelling and solution strategies
   Project planning, management and operation under uncertainty
   Dynamic- and Event pricing, Demand based Management
- Project Logistics
- Facility Layout
   Customer transportation

### Literature

K. K. Haugen, Event Logistics, Molde Specialized University, forthcoming 2010

S, Nahmias, Production and Operations Analysis 5th ed., McGraw-Hill, 2005, ISBN 007-123837-9

K., K. Haugen, A Olstad and B. I. Pettersen. The profit maximising capacitated lot-size (pclsp) problem. European Journal of Operational Research, pages 165-176, 2007

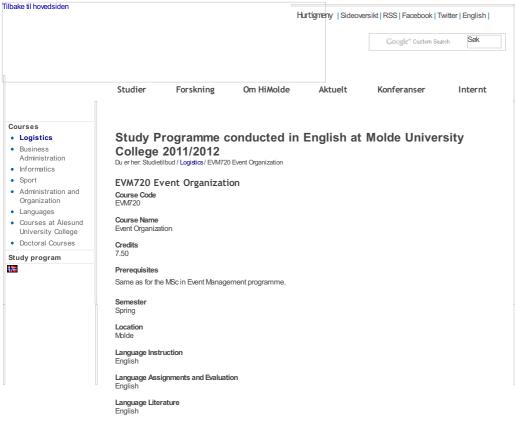
K. K. Haugen, A Olstad and B. I. Pettersen. Solving large-scale profit maximization capacitated lot-size problems by heuristic methods. *Journal of Mathematical Modelling and Algorithms*, pages 135-149, 2007

T. Jørgensen. Project Scheduling as a Stochastic Dynamic Decision Problem. PhD thesis, Norwegian University of Science and Technology, 1999

H. L. Lee. Ultimate enterprise value creation using demnd-based management. Working paper SGSCMF-W1-2001, 2001

A Olstad. Dynamic Pricing and lot-sizing within Manufacturing. PhD thesis, MHH, Molde Specialized University, 2006

W. Herroelen and R. Leus. Project scheduling under uncertainty. Survey and research potentials. *European Journal of Operational Research*, pages 289-306, 2004



Instruction Module based

Evaluation
4-hour written exam (60 %). Assignments (40 %).

Support materials for examination

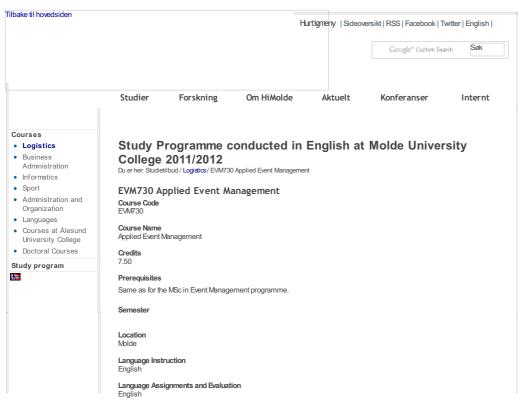
Grades Letter (A-F)

Content

The course focuses on project organization and management with a special treatment of event studies.

Literature

Getz, D. (2007), Event Studies. Theory, Research and Policy for Planned Events. Elsevier



Instruction 2 hours of lecture per week. In addition there will be practical training.

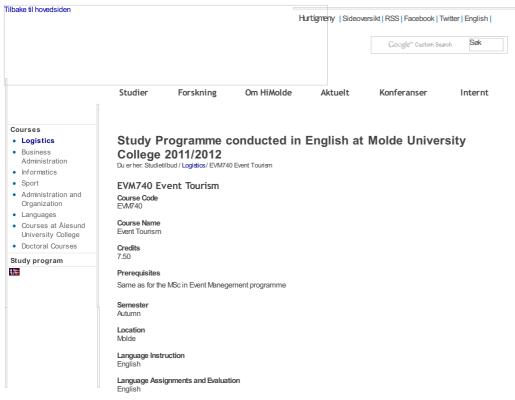
Evaluation
The students will be involved with local practitioners in event planning and organization and will be given group or individual exercises to complete upon passing each module.

Support materials for examination

**Grades** Pass/fail

Content

The course will be conducted through on-location work at local event organizers; Molde International Jazz festival, Teatret Vårt, Molde fotballklub b and Molde Forum. Local organizers as well as lecturers from Molde University College will take part in the course. The course consists of modules (4) one for each event organizer and each module must be passed for a course pass. The assignments may range from practical event organisational tasks, through case studies to analysis.



Instruction 3 hours of lecture per week

Evaluation Coursework (75%) and oral presentation (25%)

Support materials for examination

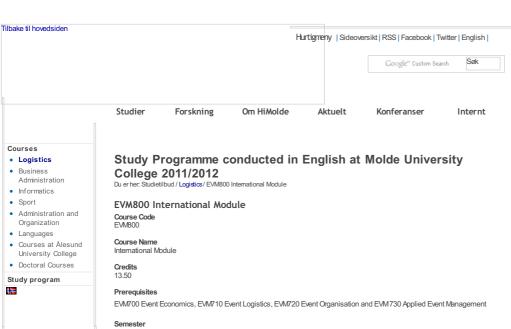
Grades Letter (A-F)

### Content

The course focuses of five key aspects of event tourism; concepts and definitions, demand and supply, planning and management, collaboration and stakeholder relations, and sustainable development

D. Getz, Event Management and Event Tourism, 2nd ed., Cognizant Communication Corporation, 2005, ISBN 978-1882345465 MWeed, Sports Tourism: Participants, Policy and Providers, Butterworth-Heinemann, 2009, ISBN: 978-0750683753 M Weed, Sport & Tourism: A Reader, Routledge, 2008, ISBN: 978-0415426886

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The students shall travel abroad for approximately a week to get a deep insight into event organization in the field. The basic idea is that the students tour around accompanied by two academics, who are very knowledgeable in theories of event management. Both shall have the necessary network, to ensure that approximately 15 practitioners (guest speakers) can be invited. They are also in charge of organizing the morning lectures (theoretical approach) and the evening seminar as well as they will have to organize the trip tour (including accommodation, seminar rooms, bus transfers).

During the tour the students shall learn from both academics but in particular from various stakeholders of small/huge, one off/returning events as well as from sport/cultural events

The academics accompany the start of each day with a "theoretical based lecture" (90 min.) and finish the day with a 90 min. seminar at late afternoon/early evening where students make small presentations (which they prepared at home) as well as the practical information gathered over the day will be critically discussed and placed into a theoretical frame.

During the day the students experience 2-3 presentations (each 1 hour) from various practitioners being involved in event organization. The presentations can be given at a meeting room of the accommodation but in a particular venue (e.g. by making a guided stadium tour).

All students have to prepare the tour by

- reading basic texts
- preparing a fact sheet about the institutions that are going to be visited
- preparing a 15 min, short presentation on a given topic to present and discuss in the evening seminars

Relevant European event sites

## Language Instruction English

## Language Assignments and Evaluation English

### Language Literature

English

Participation and travel report. The report should be at least 10 pages recalling the knowledge gained and connecting that knowledge to the respective theory.

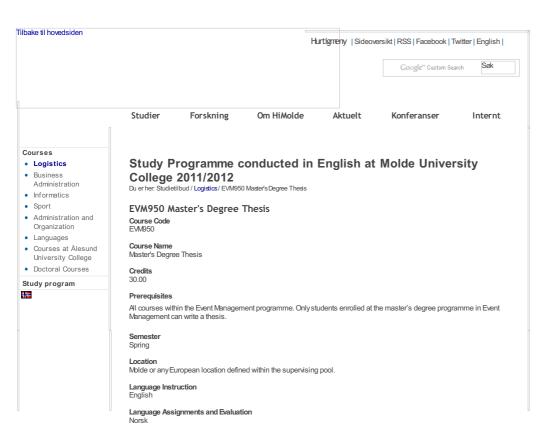
Support materials for examination

## Grades Pass/fail

### Content

Adetailed travelling and lecture schedule will be developed in due time before the travel. Example of sites to visit are Nyon (UEFA), Lausanne (IOC), Magglingen (BASPO), Lucern (Rütter & Partner), Bern, Lichtenstein, Innsbruck, Kitzbuehel, Salzburg, Munich, etc.

This module will imply economic contribution from both the students and the college. The students will need to carry their own travel cost from Molde to the first location and from the final location to Molde. They will also need to carry accommodation costs for all days. The college will, however, help to organize contact with sponsors in order to obtain financial support for the module. The cost for the college will include travel and accommodation for two professors, entrance fees, meeting rooms, guest lecture honorarium and bus travel between the locations.



Instruction
The master's thesis is an independent work done by a single student or two students together and supervised by a faculty advisor. It is the duty of each student to obtain a supervisor at the latest in the start of Semester 3.

Evaluation
Submission of the written thesis and an oral thesis defence are required. The final grade is a combination of grades received on the thesis and the oral presentation. Only one final grade will be presented to the student.

### Support materials for examination

### Grades

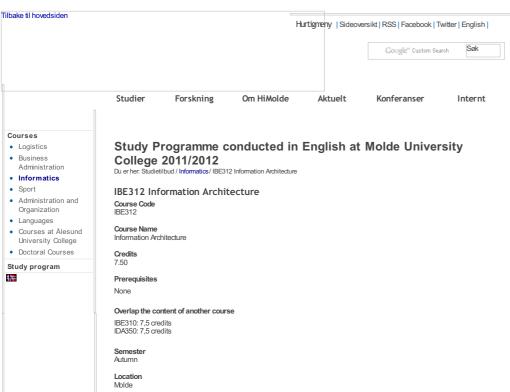
Letter (A-F)

Athesis is an independent, extensive work that is done under the guidance of an advisor/professor in the discipline. Not more than two students can work on the same thesis. Possible supervisors can be chosen among local professors or within a pool of European professors. The student can choose the amount of time spent abroad together with the foreign professor if a foreign supervisor is chosen.

The most important objective is to give training in independent project work that has a strong professional basis. Students should employ methods and knowledge that has been learned in their courses, and show that they can apply these methods in the explanation and solution of problems in Event Management.

### Content

Candidates are relatively free to choose topics. Athesis can be either applied, related to an event organizer or an agency/governmental body, or it can be a theoretical investigation.



Language Instruction

English

Language Assignments and Evaluation English

Language Literature English

Instruction 2 hours of lecture per week

Mandatory Assignments Mandatory assignments

Evaluation 4 hours written final examination (100%).

Support materials for examination

Grades Letter (A-F)

Learning outcome

After having completed this course the student should:

- Have thorough knowledge about information architecture.
- Be able improve the flow of information inside businesses, between businesses and between businesses and
- Be able to help businesses in handling their steadily increasing amount of documentation both for presentation, structuring and storage.

### Content

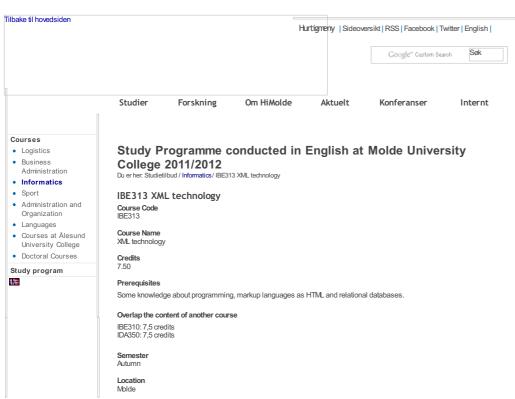
Accomplishing relevant projects and exercises in all central topics.

Central topics:

- Dissemination of information on an Internet site (The anatomy of information architecture)
- Distribution of documents and e-publishing (CMS)
- . Work flow and information management (CMS)
- · Trends on the Internet.

### Literature

Louis Rosenfeld, Peter Monille: Information Architecture for the World Wide Web: Designing Large-Scale Web Sites. O'Reilly Media, 2006



### Language Instruction

English

# Language Assignments and Evaluation English

## Language Literature English

### Instruction

2 hours of lecture per week

## Mandatory Assignments Mandatory assignments

Evaluation 4 hours written final examination (100%).

### Support materials for examination

Grades Letter (A-F)

After having completed this course the student should:

- Know the formal construction and use of markup languages (XML) and supporting technologies.
   Be able to use XML to simplify document and data management inside a company and on the Internet (using for example Web services).

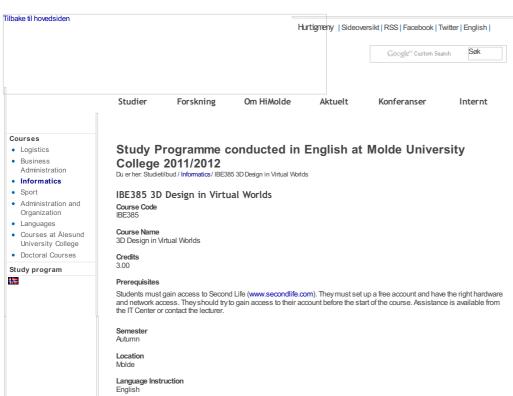
### Content

Execution of relevant projects and assignments in all central topics.

### Central topics:

- Structured information using XML XML as a flexible markup language.
- XPath as a central component of most XML applications.
- Document control using XML technologies as DTD and XML Schema.
   Document conversion using XML technologies as XSLT and XQuery.

Anders Møller, Mchael I. Schwartzbach: An Introduction to Xml And Web Technologies. Addison Wesley Publishing Company, 2006



## Language Assignments and Evaluation English/Norwegian

### Language Literature

English

The course will meet in Second Life over 6 weeks. Meetings will be one time a week for 2 hours.

Mandatory Assignments
Deliver in class work and final project in the form of specified 3D objects. Deliver a report about the built objects. Demonstrate the built objects to the instructor.

Deliver a end of course Exam. This exam may be administered as a take home (independent study) exam, that should have answers delivered on a specified date.

### Evaluation

60% Project Work; 40% End Exam

### Support materials for examination

Grades Letter (A-F)

### Learning outcome

Introduce the theory and practical technologies used in 3D Design in modern industry. Address how some design work can be done in the 3D environment of Second Life.

This course is an introduction to 3D graphic design of objects in virtual worlds. We will use the virtual world of Second Life as a working environment. The course will have an introductory meeting in a physical lecture room, and also in the 3D virtual world of Second Life. After the introduction meeting, there will be only meetings in Second Life. (Face to face meetings may be arranged with the teacher on request.)

This course will focus on a theoretical introduction to 3D Design and discussion of the technologies and applications used in Inis course will focus on a theoretical introduction to 3D Design and discussion of the technologies and applications used in industry (such as may be used in the building of ships, transport vechicles, or furniture). For practical exercises, we will use the virtual world of Second Life (SL). We will ask students to apply design techniques (learned from industry examples) and address requirements (of customers) to designing a course project in SL. The course project requirements will be presented as "customer specifications". Students will design and build objects, and report on the project in oral and written presentation. Programing languages and applications that may be used in the course include: Linden Scripting Language (LSL) and graphic editors (such as Gimp - open source, but others may be suggested later).

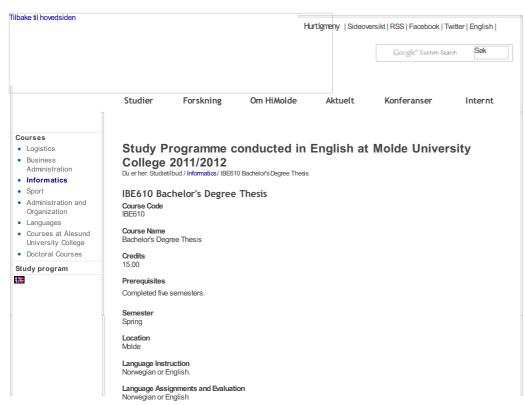
### Literature

Literature to be decided at the start of the course.

Literature:

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\* To be decided at course start.



Mandatory Assignments
The final thesis/report must be handed in within June 1st.

Support materials for examination

Grades Letter (A-F)

### Learning outcome

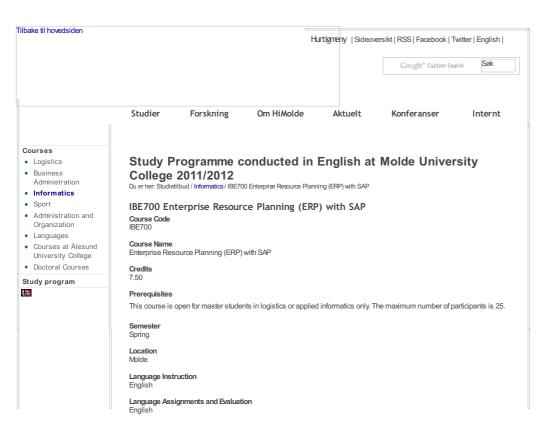
After having completed this course the student should:

- Be able to write a larger, structured report.Be able analyze an IT related problem and argue for a solution.
- Be able to work independently with a larger task.

### Content

Topics and project opportunities not available in regular courses in the Bachelor's programme.

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Instruction 3 hours of lectures and guided exercises per week. Some weeks will be planned for more intensive hands-on training.

 $\begin{tabular}{ll} \textbf{Mandatory Assignments} \\ \textbf{Presence in 80 \% of the lectures is required. All exercises are mandatory.} \\ \end{tabular}$ 

Pass/Fail evaluation based on mandatory assignments

Support materials for examination

## Grades Pass/fail

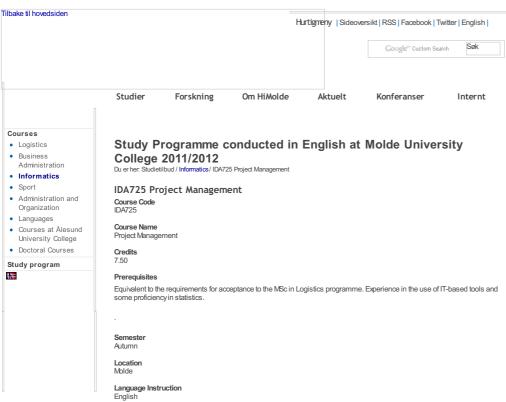
### Learning outcome

After successfully completing this class, students should:

- Have practical skills in operation of the SAP ERP-system modules; Material Management, Sales and Distribution, Production Planning and Financial Accounting
- Have theoretical knowledge of; business processes, business process modeling and the historyand evolution of ERP
- Have an understanding of how ERP- systems support and automate business processes

The development of ERP-systems over the last decades has been one of the key advancements in organizations' use of information technology. An ERP-system supports and automates business processes across functional areas and integrates data across the organization. ERP-systems are designed to connect the entire organization, including suppliers and customers, in a web-enabled computing environment that provides information to all participants as needed. This course describes the managerial and technical challenges in implementing ERP-systems and managing an organization with such an interdependent, connected system. From a technological view, students will use a commercially available ERP-system (SAP) to build an understanding of the functional capabilities of such systems. From a managerial view, students will use business cases to develop an understanding of the process of implementing and using enterprise systems effectively in organizations. cases to develop an understanding of the process of implementing and using enterprise systems effectively in organizations

Ellen F. Monk, Bret J. Wagner. 2008. Concepts in Enterprise Resource Planning. 3rd ed. Boston: Course Technology.



## Language Assignments and Evaluation English

### Instruction

2 hours of lecture per week

Mandatory Assignments
Exercises to be handed in by specified dates.

Evaluation 4-hour written examination

### Support materials for examination

## Grades Letter (A-F)

After having completed the course, the candidate should:

- After naving completed the course, the candidate should:
  -have a deep understanding of project work
   have a leve understanding of project work
   have a broad knowledge of methods and techniqes to plan and conduct large projects, including IT-projects.
   be able to analyse risk elements in projects and how to deal with them.
   be able to manage state-of-the-art ITC-tools for project management.
   have overview of different stakeholders' interests and responsibility in projects.

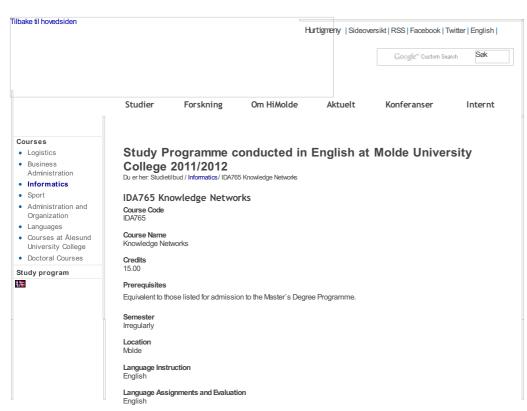
### Content

The course will include the following topics: - Identifying and organizing a project

- Identitying and organizing a project
   Defining critical path and timelines
   Estimating costs and dealing with project uncertainties
   Quality control, documentation and change control management
   Project control, progress reporting and evaluation
   Cost control and project financing
   Managing project teams. The role of a project manager.
   Project audit and closure.
   Use of project management tools.

### Literature

Gray, Clifford F., Larsson, Erik W., Project Management - The Managerial Process, McGraw-Hill, 4th ed., New York, 2008.



### Instruction

Supervised self-study

### Mandatory Assignments

Participation in lectures is required. Exercises must be submitted by a specified date.

Evaluation
4-hour written examination (60%) plus lecture participation and practical exercises (40%).

### Support materials for examination

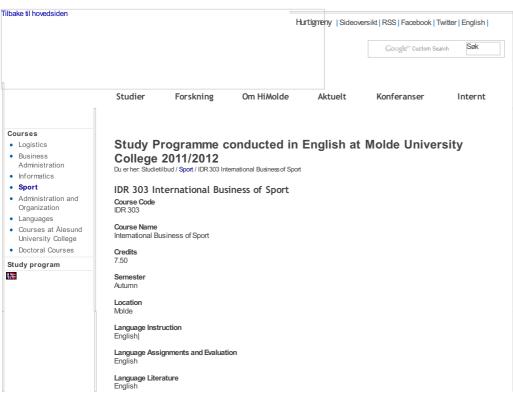
### Grades

Letter (A-F)

This course will examine the establishment and growth of knowledge networks. Knowledge networks include information, people and resources applied in an interrelated system. We will study the basic theories of networks including social networks, technology networks, and product networks. We will analyze how networks impact the intra-organizational and interorganizational environments.

### Content

Knowledge networks are complexsystems of resources including information, people and technology resources. Examples of knowledge networks include the network of web pages on the Internet, or a network of experts within an organization. This course will study the theoretical foundations of network theories beginning with studies in social networks and continuing with recent research in information networks, such as the network of web pages and peer-to-peer service networks. Understanding the life cycle, strengths and weaknesses of knowledge networks is important for organizations to establish and promote new products, for sharing expert knowledge, for providing reliable and continuous service. We will examine the present theory and research in knowledge networks. We will make use of simulation software to study the dynamics of networks. Students will be asked to interact in class in discussion of the course reading materials. The course will include project work with the software and discussion of freetiles. and discussion of results.



Lectures and seminars. The course builds on team and individual projects that aim at synthesizing knowledge and understanding

Mandatory Assignments

Mandatory team assignment(s) during the course. The team work's progress and results is to be presented in class. A "pass" on the team assignment(s) is needed in order to be eligible for the final course exam.

Evaluation Individual exam.

### Support materials for examination

### Grades

Letter (A-F)

## Learning outcome

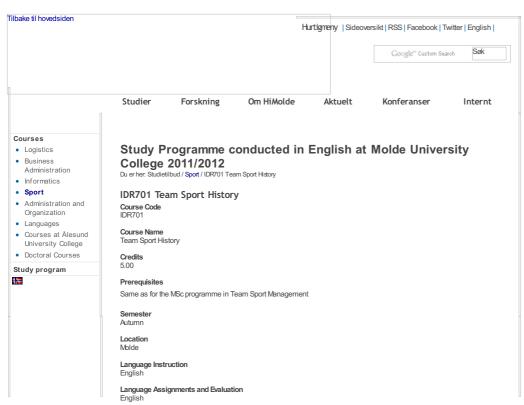
Upon completion of the course the student will be able to:

- Understand the distinctive nature and significance of going global in sport
- Evaluate industry structure, corporate strategy and value creation
  - Identify factors affecting modes of international operation
  - Explain the ideas of global integration and local responsiveness
     Grasp why international collaborative arrangements succeed or fail
- Illustrate the different ways sport businesses can accomplish their global objectives
- Analyse the major causes of cultural differences and change

Apply and communicate this understanding to real cases and problems using appropriate international business theories

### Content

- The forces driving globalization, international business and sport
- The cultural environments facing business
- Types of strategy and the organization of international business
- Approaches to value creation: global integration versus local responsiveness
- Strategic positioning and branding
- Managing international collaborations
- International human resources management
   Research tools in international business research and analysis



Instruction

Seminar, 2 week duration, consisting of classroom teaching (25h), reading groups and individual work.

Evaluation Home exam

Support materials for examination

Grades Letter (A-F)

Learning outcome

Knowledge

Completing this course the students should:

- · know the origin, development and diffusion of major team sports
- know how national and international sport organizations were established, and how policy and power influenced on the  $\ development of these \ organizations.$
- know how to apply gender-, identity- and culture theories in analyzing the cultural relevance of team sports in different European contexts

Skills

Completing this course the students should:

- be abel to acquire knowledge of the history of major team sports such as soccer, rugby, basketball, ice hockey, handball
- be able to do analytical work of a historical phenomenon, both individually and as part of a group.
- be abel to present an historical analysis, both in writing and oral, in an theoretically informed manner.

General qualifications

Completing this course the students should:

- be abel to work independently analysing a historical problem
   be abel to discuss historically phenomenon orally in a group session
- recognize the qualities and the relevance of historical knowledge as part of understanding cultural expressions like sport of today.

- o The origin and invention of major team sports
- o Migration and diffusion of team sports
- o Regulation of team sports o Team sport and gender relations
- o Team sport and politics
- o Team sport and identity
- o The emergence of national and international organizations

### Literature

Recomended literature:

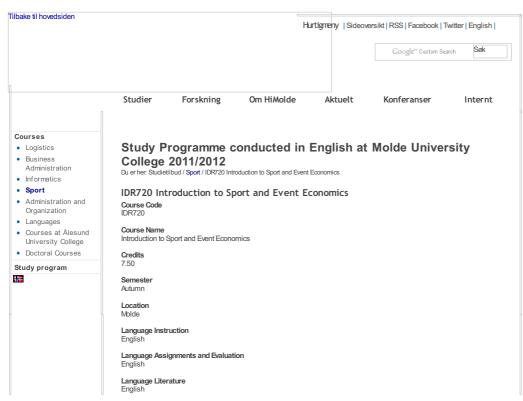
Collins, Tony (2009), A Social History of English Rugby Union. London: Routledge

Lanfranchi, Pierre (2004), 100 years of football: the FIFA centennial book. London: Weidenfeld & Nicolson

Lanfranchi, Pierre og Matthew Taylor (2001), Moving with the ball: The migration of professional footballers. Oxford: Berg

More detailed reading lists will be presented when starting the course

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Instruction Seminar

Evaluation 4 hours final written exam counts for 100% of grade.

Support materials for examination

Grades Letter (A - F)

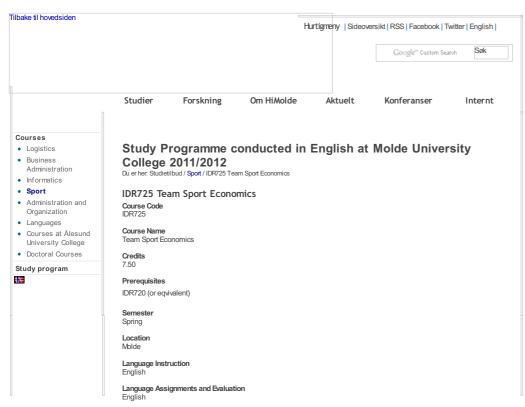
### Learning outcome

After completing the course the student will
- understand the microeconomic issues related to team sports and the hosting of major events.
- be able to analyze the factors and mechanisms that influence the size and the distribution of the revenues and costs from

- Supply and demand
- Consumer behavior
- Production
- The cost of production
- Market theory
- Price strategies
- Game theoryExternalities and public goods

### Literature

Wladimir Andreff & Stefan Szymanski (Ed.). 2006. Handbook on the economics of sport. Cheltenham, Glos, Edward Elgar Publishing Ltd.



## Instruction Seminar

Mandatory Assignments
Students are required to write essays on assigned topics during the course.

 $\hline \textbf{Evaluation} \\ \text{The submitted mandatory essays are counting } 60\,\% \text{ of the final grade and a 4 hours written exam counting } 40\,\%.$ 

### Support materials for examination

### Grades

Letter (A-F)

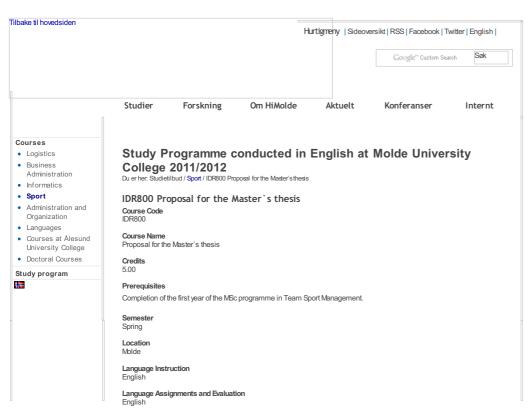
### Learning outcome

After completing the course the student should

- demonstrate knowledge of the essentials in traditional and modern sports economics
- be able to apply theories in analyzing economic problems in sport

Wadimir Andreff & Stefan Szymanski (Ed.). 2006. Handbook on the economics of sport. Cheltenham, Glos, Edward Elgar Publishing Ltd.

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Instruction Mainly supervision by faculty staff members

### Mandatory Assignments

All students must write a paper (proposal) presenting the research problem, theoretical approach and research methods in their master thesis.

Evaluation Evaluation of the research proposal and oral presentation (defence) of the proposal

### Support materials for examination

## Grades Pass/fail

### Learning outcome

### Knowledge

- have good insights and knowledge in scientific methods, and applying these in outlining a research project.
- know how to search for, find and make use of adequate literature.

### Skills

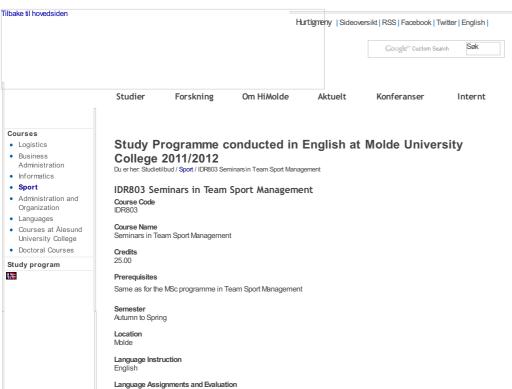
- be able to acquire new scientific literature in an independent and critical way
- Applying theories as well as knowledge of the field in order to formulate an interesting research question.

### General qualifications

- be abel to work independently
- Present a research project orally and defend this in a group consisting of fellow students and faculty staff.
- be abel to ask and answer critically questions concerning a research project.

### Content

Research work, research methods and litterature search



### English

# Language Literature English

### Instruction

Seminars of 1-2 weeks duration given by invited experts/researchers from all around Europe.

### Mandatory Assignments

Each seminar will include lectures, assignments, group work and discussions but the format may vary from seminar to seminar as they are given by different scholars from around the sport academic and practical world.

Attendance to all seminars is compulsory. The method of evaluation may vary from seminar to seminar but assignments and some home exams must be expected and there will be at least one large home exam (2 weeks) requiring a written assignment of 5-6000 words.

### Support materials for examination

### Grades

Letter (A - F)

To introduce the students to a scientific approach to up-to-date issues in team sport management. When going in depth, seminars will also train the students on how to approach narrow topics analytically. When being broad, the seminars will broaden the understanding of the students. Seminar topics will be based on academic fields such as sport law, sport psychology, the management of sport organizations, the sociology of sport, the ethics of sport and sport & media, etc.

Aselection of possible seminar topics

- Industrial relations in professional team sports
   The organization of team sport clubs
   Wodels for development of home grown players
- Club top management
- Player logistics
   The regulation of players agents
   Player contract negotiations
   Sponsorship in team sport

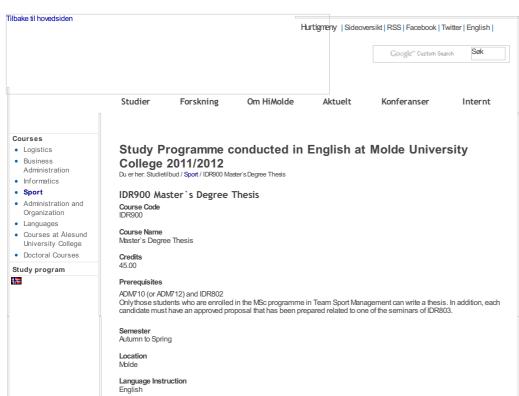
- Arena development
   Community relations of professional sport clubs
   The treatment of compensation, punishment, doping issues etc. in sport law
   When sport law meets EU civil law
- Psychological organizational effects of winning and loosing
   Economics of doping
   Empirical analysis of sports
   Game Theory and sports
- Regulation of sports activity
- Sports and subsidies the role of sports organizations and regulators Sport strategy game theory approaches Team sport and the sociology of law

- Teams sports in an international perspective

At least one seminar will be related to sports law and one to sports psychology. The topic of "Scandinavian team sport in an international perspective" will be covered. One of the seminars will be selected as the basis for a two-week home-exam.

### Literature

Depending on the specific seminar. About 4-600 pages per seminar. The reading list, literature and program for the specific seminar will be given in advance.



## Language Assignments and Evaluation English

Supervision according to agreement. The master's thesis is an independent work done by a single student or two students together

### Evaluation

Evaluation

Submission of the written thesis and an oral thesis defense are required. The final grade is a combination of grades received on the thesis and the oral presentation. Only one final grade will be presented to the student.

### Support materials for examination

### Grades

Letter (A-F)

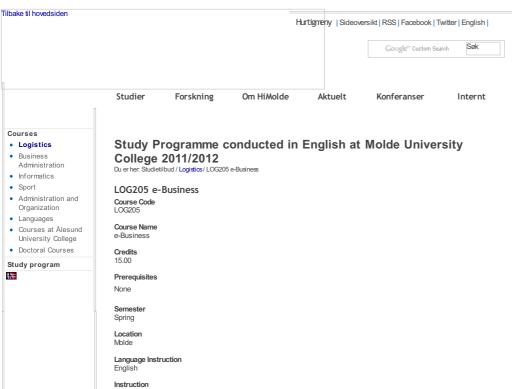
The most important objective is to achieve training in independent project work with a strong professional basis. Students should employ methods and knowledge that has been learned in their courses, and show that they can use these in the explanation and solution of problems in team sport management.

### Content

Athesis is an independent, extensive work that is done under the guidance of an supervisor/ professor in the discipline. Not

more than two students can work on the same thesis.

Candidates are relatively free to choose topics, but as a norm they should be affiliated with a sport club or association or another organisation working with sport and do their thesis within this context. Athesis can also be applied, related to a companyfclub or an agency/governmental body. In exceptional cases it can be a theoretical investigation/approach.



4 hours of lecture per week

Mandatory Assignments

Compulsory exercises must be submitted and an oral presentation must be made by a specified date. An compulsory project must be submitted during the semester.

4-hour written final examination counts 80% of the final grade. Compulsory exercises and class participation count 20%.

### Support materials for examination

Grades Letter (A - F)

### Learning outcome

The course will give an overview of the incentives and opportunities resulting from the development of e-business. Furthermore, there will be a discussion of relevant economic concepts, the character of organizations, participation in this new market place and use of information technology, which has caused a transition from traditional to electronic for the purpose of creating larger and faster increases in the value chain

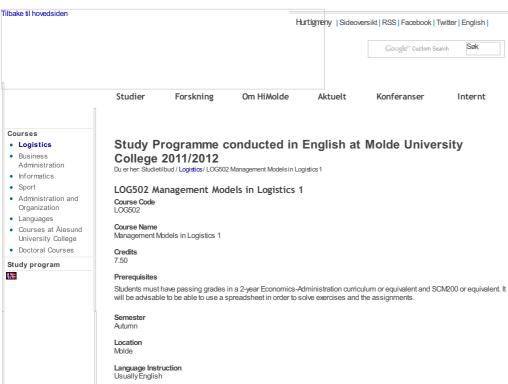
The successful candidate shall with fulfillment of this course:

- · Have knowledge in the subject area
- Can evaluate the appropriateness and application of various methods in the use of ICT in an e-Business project
- Can make their own or evaluate a strategic plan for the use of ICT in business

The course covers the transition from traditional to electron business. The following concepts are discussed:

- Incentives and problems in e-business
- Transition strategies for e-business
- Legal rights and problems and technical standards for cooperation
- Trade and trade channels: buyer, seller, distributors, competitors, network economics, lock-in
- New business structures: within companies, between companies, virtual business, models for trade between companies (B2B) and between companies and customers (B2C)
- Customer relations management (CRM)
- Supply chain management (SCM)
- · Electronic document exchange
- · Electronic payment, security
- Network infrastructure and internet technologies for e-business
- Pricing policies pricing of services
- · Planning e-business to generate value increases

Arequired project must be handed in. The groups can consist of 1-2 students. The groups will be give a list of topics to choice from – only one topic per group. At least one person from each group will present the project. Projects may be reviewed by peer-



## Language Assignments and Evaluation English and Norwegian

Language Literature English

Instruction 3 hours of lectures per week

Mandatory Assignments
One mandatory assignments (pass / fail) in addition to the two mandatory assignments which is included in the final grade.

5-hour written final examination, counting 80%. Two mandatory assignments, counting 10% each.

### Support materials for examination

Grades Letter (A - F)

### Learning outcome

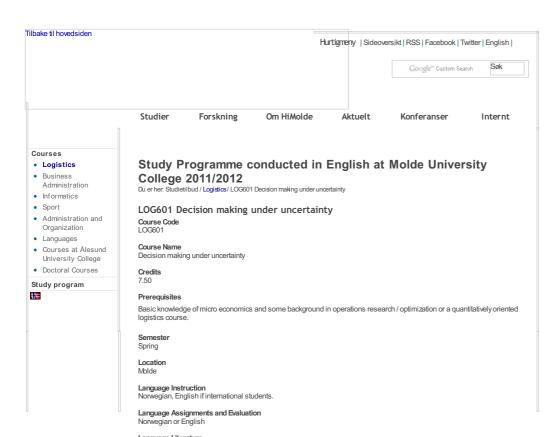
The course aims to describe simple models for different parts of the value chain for a manufacturing company. After completing the course, the candidate should have knowledge about and be able to use models for:

- Forecasting
- Aggregated planning
- Inventory and production management with deterministic and stochastic demand.
- Lot sizing
- Operations scheduling

The course is a continuation of topics treated in SCM200. Models for managing the individual links in the value chain will be ne course is a continuation of topics freated in SCM2U. Models for managing the individual links in the value chain will be emphasized. The course will focus on problems in forecasting, distribution, inventory and production. Within production, major production planning and the management principles from MRP I (Material Requirements Planning) will be treated. Within aggregated production planning, the simplest situations are treated. In this connection, simple methods and tools from operation analysis are used. Within inventory management, the course treats deterministic models for families of goods, limitation of resources, discounts and some stochastic inventory models. Further, lot-sizing is discussed as a single topic, forecasting with simple models and some cases of scheduling. Several quantitative models for the topics mentioned will be presented and used explicit in formulation and solving actual problems.

### Literature

Nahmias, Steven, 2009, Production and Operations Analysis, 6th edition, McGraw Hill



Instruction
3 hours of lectures per week.

Mandatory Assignments 3 mandatory assignments

Evaluation
4-hour written final examination (100%).

Support materials for examination

Grades Letter (A-F)

Learning outcome

After completing the course the student will know

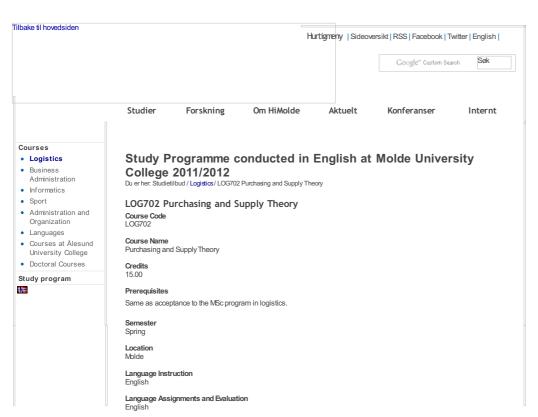
- how different disciplines handle uncertainties related to planning.
  how to assess and handle uncertainties in such as price, demand and travel times.
- how to assess uncertainty both qualitatively and quantitatively.

The course will cover uncertainty in planning from mainly three different perspectives:

- . Does the decision-makers understand uncertainty? What can we do to be correctly understood? These questions are dealt with in behavioral psychology.

  Which methods should be used to handle uncertainty correctly in planning models so that flexibility is maintained? This
- Which meaning a module of each of hands directably correctly in planning modes so that leaving is maintained; question is dealt with in operation analysis.
   Utility theories based on analyses of lotteries and basic options theory. These theories are dealt with in economics.

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### Instruction

4 hours of lectures per week

### Mandatory Assignments

wandatory Assignments
1-2 assignments. The course will contain two full-week case studies. During those two weeks, all courses that are scheduled together with LOG702 will be stopped. It is mandatory to be present during the case studies.

6-hour written final examination, plus two case studies. The case studies each counts 20% of the final grade

### Support materials for examination

Grades Letter (A-F)

### Learning outcome

The course aims at providing knowledge about purchasing and inter-organizational theory and the organization of business-to-business relationships upstream.

The course will give the students insight and knowledge about current theory and literature within the purchasing and supply field and how purchasing firms are to perform economic transactions with their suppliers and will elabourate the conditions for

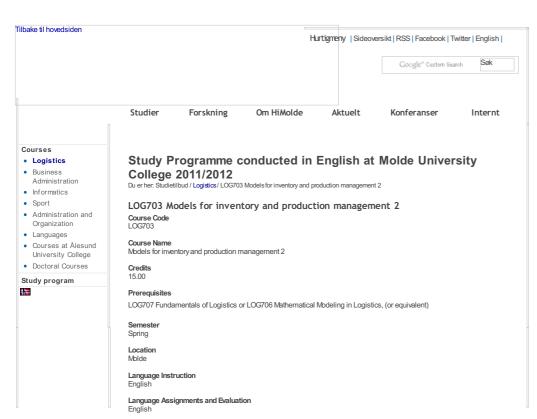
efficient organization of supplier-buyer relationships.

The relationship between relevant purchasing and supply theories and the analysis of purchasing and supply problems is an important issue and the course aims at improving the students' ability to apply relevant theory in their master theses.

The course presents a broad scope of issues within purchasing and inter-organizational theory. -industrial buying behaviour -purchasing theory -supply chain management -transaction costs theory -principal-agent theory -resource-dependence theory -relational contracting theory

Participation of students through questions, comments and presentations in the classroom is important for making a good atmosphere of learning.

Douma, S. and Schreuder, H.: Economic Approaches To Organizations, Prentice Hall International, (UK) LTD., 2008. Van Weele, A J.: Purchasing and Supply Chain Management, Thompson Learning, 2008. Arri Buvik (Compendium): Collection of Articles in Purchasing and Supply Theories for Master Students: Molde University College, Spring, 2010.



### Instruction

6 hours of lectures per week. The course also contains two full-week case studies

### Mandatory Assignments

It is mandatory to be present during the case studies

Evaluation
6 hours individual written final examination counts 60% of the final grade. The two compulsory assignments each count 5%. The cases each count 15%

### Support materials for examination

Grades Letter (A-F)

### Learning outcome

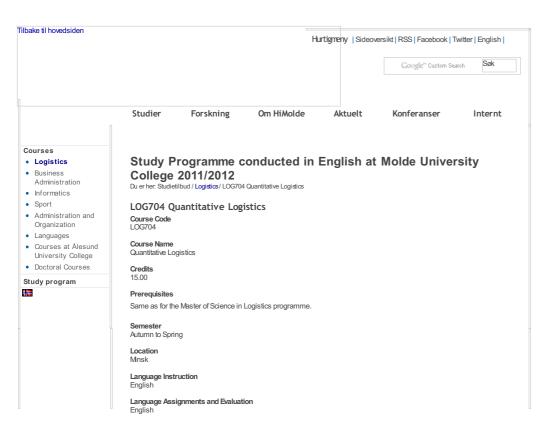
The course is a continuation of topics covered in LOG707, plus some new topics. There will be emphasis placed on problems in the management of inventory and production control. In addition, extensive quantitative models in the aforementioned areas will be presented and used specifically in the formulation and solution of logistical problems. The successfull student is expected to be able to identify, analyse and solve problems within the mentioned sub-fields and also be able to evaluate the solutions to such problems.

### Content

Different inventory management principles and models for deterministic and stochastic demands including the Newsboy problem will be discussed. Emphasis will be placed on the differentiation of products in connection with inventory management and its consequences, more specifically different approaches for treating slow-moving articles. In production planning, sequential planning, Little's law and line balancing will be treated.

Edward A Silver, David F. Pyke and Rein Peterson: Inventory Management and Production Planning and Scheduling. John Wiley and Sons

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Instruction 9-12 hours of lectures per week, intensively during some weeks, altogether 72 lectures.

Mandatory Assignments
There will be several obligatory assignments.

### Evaluation

6-hour written final examination counts as 60 % of the final grade. Anumber of the mandatory assignments count as 40 %.

### Support materials for examination

### Grades

### Learning outcome

The main purpose of the course is to give students the intermediate knowledge in quantitative logistics, with emphasis on analysis of basic decision problems in individual parts of the value chain and quantitative solution methods and models. At the end of the course, the students should be able to define and formulate various desicion problems on strategical, tactical and operational levels in production planning, distribution and inventory management, and to apply appropriate quantitative methods and tools for solution and analysis of logistical problems for the aforementioned areas.

### Content

The course will cover principles, decision rules, operational analytical methods, models and suitable tools to deal with:

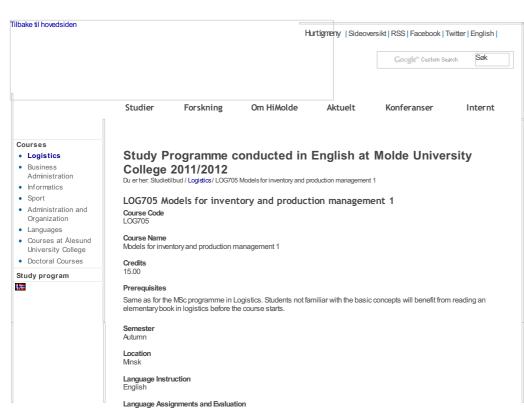
- Transportation and transhipment problems.
- Various problems on networks.
   Assignment problems.
   Facility location problems.

- Vehicle routing and arc routing problems.
   Different principles for dealing with inventory management and models for known demands, including discounts and forecasting, as well as safety stocks, multiple items models, models with restriction on space and capital.

- Decision rules for lot sizing.
   Issues in production such as production planning and control of material requirement planning (MRP).
   Special issues associated with production control in aggregate production management.

### Literature

Steven Nahmias, 2005. Production and Operations Analysis, Fifth Edition, McGraw-Hill/Irvin.



Instruction

6 hours of lectures per week

Mandatory Assignments
There will be several obligatory assignments.

S-hour written final examination. In addition, students will write two essays on assigned topics. The two essays are part of the examination requirement, and will be handed in during the exam. The final grade will be a combination of the grades from the examination and the papers.

### Support materials for examination

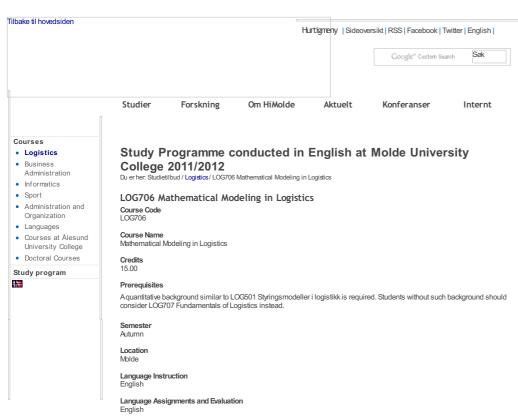
## Grades Letter (A-F)

The course will extend the core topics normally treated in an introductory course in logistics, such as elementary inventory theory, material requirement planning and just in time production. Models for managing the individual parts in the value chain will be a major part of the course. Special emphasis will be placed on problems in distribution, inventory and production, along with some prognosis. In addition, quantitative models will be presented for the aforementioned areas and used explicitly in formulating solutions to logistical problems.

### Content

The course will discuss:

- Distribution models for the transportation problem and transhipment problem. An introduction to vehicle routing and arcrouting problems.
- Different principles for dealing with inventory management and models for known demands, including discounts and forecasting, as well as safety stocks, multiple items models, models with restriction on space and capital. Decision rules for lot sizing.
- Issues in production such as production planning, control of material requirement planning (MRP), JIT and OPT
- Special issues associated with production control are dealt with in aggregate production management where operational
  analytical methods and suitable tools are used to solve problems.



Instruction

6 hours of lectures and exercises per week.

Individually submitted assignments plus one case (85%). A final oral examination (15%).

Support materials for examination

Grades Letter (A-F)

### Learning outcome

After completing the course the student will

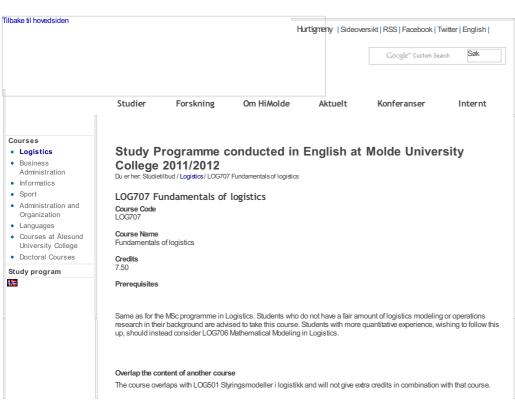
- become familiar with using software to solve linear models including the use of 0/1 variables
- get experience and training in developing and solving mathematical models, and to analyze the result.

### Content

The mathematical models will be related to logistics problems taken from production planning, distribution planning, routing, and combinations of these. The course also deals with logistic relations and the use of discrete variables in modeling. During this semester, the software programme, AMPL, will be used. The course is a combination of selected topics in logistics and an introduction to the use of software programmes.

Robert Fourer, David M. Gay, Brian W. Kernighan, A Modeling Language for Mathematical Programming, Thomson 2nd. Edition, 2003.

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### Location

Molde

## Language Instruction English

# **Language Assignments and Evaluation** English

# Language Literature English

### Instruction

3 hours of lectures per week

### Mandatory Assignments

There will be two mandatory assignments.

4-hour individual written examination. Students are required to write one or more essays on assigned topics. These shall be submitted during the final examination and each of them will count for 10% of the final grade.

### Support materials for examination

# Grades Letter (A-F)

### Learning outcome

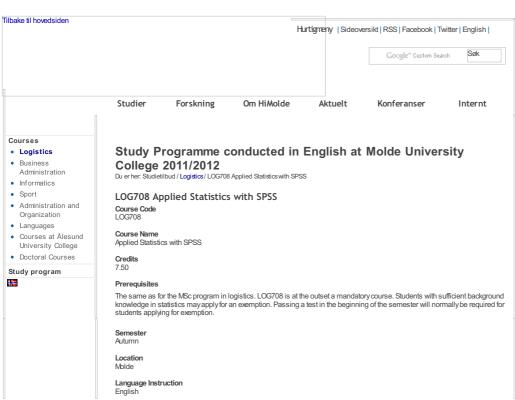
After having completed the course, the candidate is supposed to:

- Be familiar with basic models for inventory management and production planning, including the EOQ (Economic Order Quantity) model
- Understand simple linear models for logistic problems
- Be familiar with Material Requirements Planning logic Have basic knowledge about purchasing processes
- Be familiar with basic forecasting methods, such as moving average and exponential smoothing
   Know the most important principles behind the Just In Time (JIT) philosophy

### Content

The course will extend the core topics normally treated in an introductory course in logistics, such as elementary inventory theory, material requirement planning and just in time production. Models for managing the individual parts in the value chain will be a major part of the course. Special emphasis will be placed on problems in inventory and production, along with some prognosis. In addition, quantitative models will be presented for the aforementioned areas and used explicitly in formulating solutions to logistical problems. Students not familiar with the basic concepts will benefit from reading an elementary book in logistics before the course of the course o the course starts

J. R. Tony Arnold, S. N. Chapman, L. M. Clive. Introduction to Materials Management. 6th Ed. Pearson Prentice Hall, 2008.



Language Assignments and Evaluation English

## Language Literature

Instruction
Two hours of lectures per week, two hours of exercises per week

Mandatory Assignments
The students will be required to submit solutions to assignments during the semester

Two-hour midterm school examination (40 %) Final take - home examination (60 %)

### Support materials for examination

## Grades Letter (A - F)

### Learning outcome

After finishing the course, the students should have knowledge and skills enabling them to do simple practical empirical work, using software tools, e.g. SPSS. Specifically, the students should be able to

- Use basic probability distributions for simple modeling and to find probabilities and moments
- Use statistical software (SPSS) to effectively organize and present information extracted from data
- Compute confidence intervals for central population parameters such as means, variances and proportions
- Perform tests of statistical hypotheses regarding central population parameters
   Perform simple and multiple regression analysis with statistical software
- Give practical interpretations and present the results of statistical analyses in nontechnical terms

Random variables and probability distributions. Samples and populations, estimation and inference. Confidence intervals.

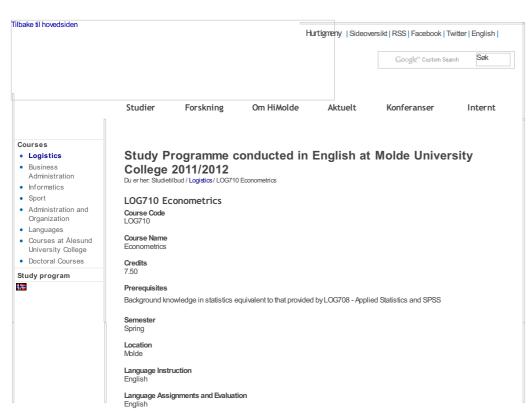
Testing of statistical hypotheses. Significance levels and P - values.

Methods: T - testis, Z - test for proportions, chi-square tests, simple nonparametric methods, basic regression analysis. Simple forecasting. Other statistical methods may also be treated.

SPSS: Managing data, descriptive statistics, performing analyzes, interpreting output.

## Literature

Newbold, Carlson and Thome: Statistics for Business and Economics, 7. edition. Pearson, Selected material from chapter 1 - 11.



Instruction Two hours of lectures per week, two hours of excercises per week

Mandatory Assignments
Two individual assignments must be passed.

Evaluation
Two-hour midterm school examination (40%). Final take - home examination (60%)

### Support materials for examination

### Grades

Letter (A-F)

After finishing the course, students should have skills and knowledge in statistical methodology constituting a base from which they can successfully carry out solid empirical work, e.g. in their master thesis or later in their academic or other professional careers. Specifically, the students should be able to

- confidently perform estimation and testing of hypotheses about main population parameters such as means, proportions,
- specify and estimate linear regression models, using appropriate theory and sample data
- identify and handle nonlinear effects in regression models using transformations and dummy variables identify and handle heteroscedasticity, multicollinearity and autocorrelation in regression data
- work with goodness-of-fit tests, analysis of contingency tables and basic nonparametric methods
- work with basic time series models and do forecasting with moving averages, exponential smoothing
- · interpret the result of statistical analyses and explain the results in nontechnical language

### Content

The content can be somewhat variable. The core topics are

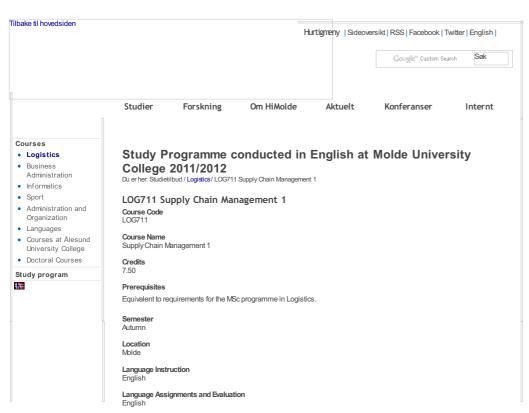
- Multiple Regression Analysis basic theory and practical aspects
- Topics in regression categorical data, nonlinear models, deviations from standard assumptions: specification bias, heteroscedasticity, multicollinearity, autocorrelation
- Nonparametric methods
- goodness-of-fit tests
- Time Series Analysis decomposition, moving averages, exponential smoothing, autoregressive models

Additional topics may include

- Discrete response regression models
- Factor analysis
- Validity

### Literature

Newbold, Carlson and Thorne, Statistics for Business and Economics, 7. edition, Pearson, Chapter 11 - 14, 16



Instruction 3 hours of lectures per week

### Mandatory Assignments

See Evaluation

Final written exam (55 %) and 3 written assignments (45 %). All assignments have to be delivered in full within a given deadline in order to be allowed to complete the final written exam

## Support materials for examination

Grades Letter (A-F)

### Learning outcome

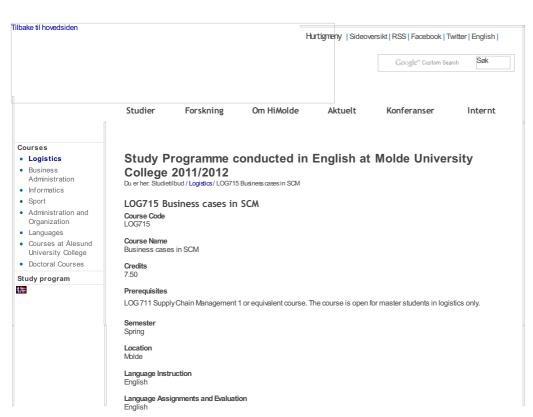
The main purpose of the course is to give the students intermediate knowledge in supply chain management (SCM), with an emphasis on terminology and basic decision problems. At the end of the course, the students should have an understanding of the most important elements in SCM in the manufacturing and service industries. They should also have an overview of the main elements in different supply chain strategies, and under what market conditions the different strategies are applicable.

### Content

The course will cover core subjects dealing with supply chain management and management of different logistics processes within the organization. The students will learn theoretical skills in operational management focused on decisions made by upper level managers in an organization. Some special topics will be treated in case work and seminars. These can varyfrom year to year. Examples can be: The bull-whip effect, risk-pooling, green logistics, network design, cross cultural management, theory of constraints.

Harrison S and R van Hoek. Logistics Management and Strategy: competing through the supply chain. 4th edition. Prentice Hall,

Selected research papers.



### Instruction

Presentation of the cases are arranged as one-day seminars. One week after the seminar the students attend in a question session for the case, where they have prepared questions for the company representative. The cases will vary from one year to the next. Depending of the subject in the case, there will also be organized day-seminars which are connected to the cases

Mandatory Assignments
All company presentations, question sessions and day-seminars are mandatory.
3 written assignments. Each assignment should consist of approximately 15 pages per student.

Evaluation 3 individual or group cases, each count for 1/3 of course grade.

All cases must be passed

### Support materials for examination

### Grades

Letter (A-F)

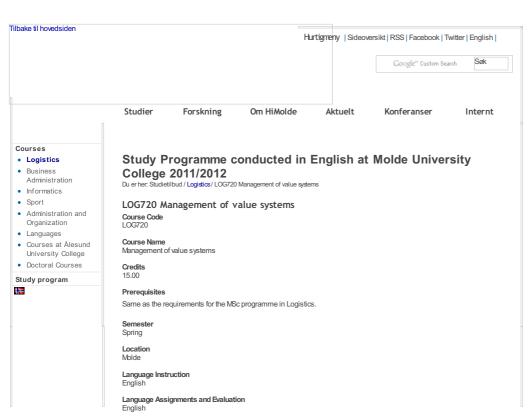
## Learning outcome

The objective is to give the students an opportunity to study and discuss specific firms and their logistical problems. The students will after the course have knowledge on solving business problems by applying theory to practical issues.

The course will mainly consist of 3 cases taken from or presented by specific firms or public organizations. The students may work in small groups (no more than 2 students per group) or individually. The students will write and submit an assignment for each of the three cases. The assignments are written analyses of the logistical problem and should indicate solutions to the problem. The business cases will vary from one year to another.

### Literature

Study material for each case will be handed out.



### Instruction

2-3 hours of lectures per week. The course contains two full-week case studies. During these two weeks all courses that are scheduled together with LOG720 are stopped.

### Mandatory Assignments

Submission of two written assignment. Students will, divided in groups, also be given responsibility for writing summaries from articles and presenting them.

It is mandatory to be present during the case weeks.

Evaluation 5 hours written examination, counts 60% of course grade. The two cases count 20% each. It is mandatory to be present during the case weeks

### Support materials for examination

### Grades

Letter (A-F)

## Learning outcome

Supply chains are, in reality, networks. Networks are complex webs of partly independent but interdependent organizations.

Changes in supply chains and networks happen all the time. In this course the students will learn how to reflect and conceptualize on what is going on in the business to day and how to play a part in the reconfiguration of value chains, networks and value systems.

Creativity and change is needed at some point in the business life cycle and at other points structural arrangements and performance are or should be high lightened. Students will also learn about the need for different leadership through the business life cycle and also learn about their own and personal style or qualities as people and leaders.

The main purpose of the course is to give students insight into the processes and structural arrangements in organisations that bring about growth but also stagnation and crises and what to do with it.

In the TV series 'X-File' there was a saying: 'You won't believe it before you see it'. In this course we have a saying which goes like this:

'You won't see it before you believe it.'

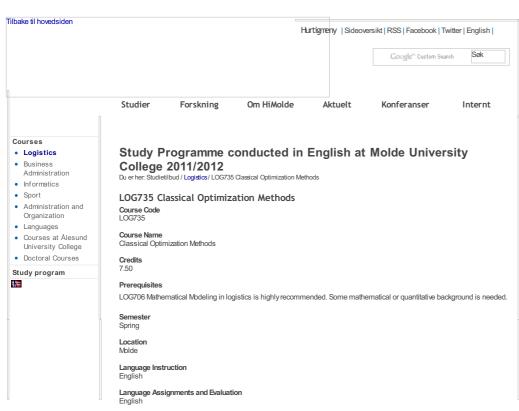
What is good and effective management? The first part of the course challenges the students on management and management styles. Learning that there is more than one reality and the reality as we as individuals or organisations recognise it, is dependent of many elements and is a central first part of the course.

It, is dependent or many elements and is a derival intsipant of the course.

To generate relevant strategies in different developmental situations require understanding of structures and processes that respectively promote or hinder growth and success.

Knowledge and understanding of above mentioned processes and elements are essential premises to perform effective or good leadership. Strategic challenges will in many ways be a continuous reconfiguration and integration of the organisations.

Quinn, Robert E. 1991. Beyond Rational Management. Jossey Bass Publ. Normann, Richard. 2009. Reframing Business. John Wiley & Son, Ltd.



Instruction 3 hours of lectures per week

Mandatory Assignments
There will be two mandatory assignments.

**Evaluation**4-hour individual written examination.

### Support materials for examination

### Grades

Letter (A-F)

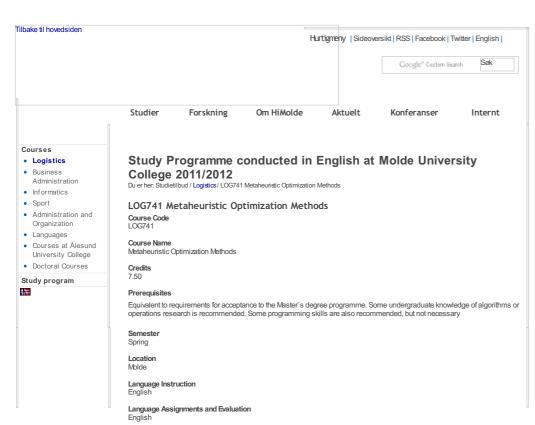
### Learning outcome

After having completed the course, the candidate is supposed to:

- Be able to solve linear programming problems by using the simplex method
   Be able to solve integer and mixed integer programming problems by using the Branch-and-Bound method
- Understand the connection between the primal and the dual of an LP, and know how to convert problems from one of the formulations to the other
- Have basic knowledge about methods for solving non-linear problems

The course will mainly focus on solving problems formulated as deterministic optimization models. Modeling will be covered only briefly, as this is supposed to be known in advance. Problems treated include Linear Programming (LP) problems, Discrete Optimization problems and Nonlinear Programming problems. Emphasis will be put on the Simplex algorithm for Linear Programming and Branch and Bound search for discrete problems, but other solution methods will also be treated.

Wayne L. Winston and Munirpallam Venkataramanan. 2003. Introduction to Mathematical Programming. Thomson/Brooks/Cole.



Instruction 2 hours of lectures per week + exercises.

Mandatory Assignments
There will be mandatory assignments.

Evaluation Oral examination

### Support materials for examination

Grades Letter (A-F)

### Learning outcome

The course offers a review of and introduction to modern meta-heuristic methods suitable for solving real-world optimization tasks in logistics. The course is especially suitable for students that plan to focus their thesis on planning problems in manufacturing or distribution.

### Content

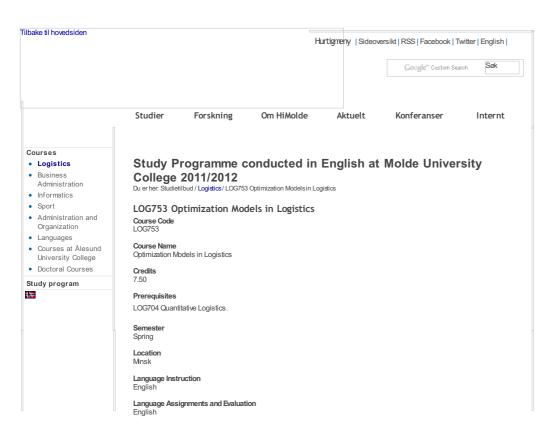
The course will include the following topics:

- Combinatorial optimization
- Local searches
- · Local search based metaheuristics
- Population based metaheuristics
- Selection of methods to solve complex problems in a timely fashion

Practical examples will be used to illustrate

## Literature

Reeves, Colin. Modern Heuristic Techniques for Combinatorial Optimization Problem Lecture foils and relevant articles will be distributed by the lecturer



Instruction
6-12 hours of lectures and practical exercises per week, intensiveliy in 4-5 weeks.

Evaluation
Afinal oral examination (20%) and individually submitted written assignments (80%). All assignments have to be delivered in full within a given deadline to be allowed to pass the final exam.

### Support materials for examination

### Grades

Letter (A-F)

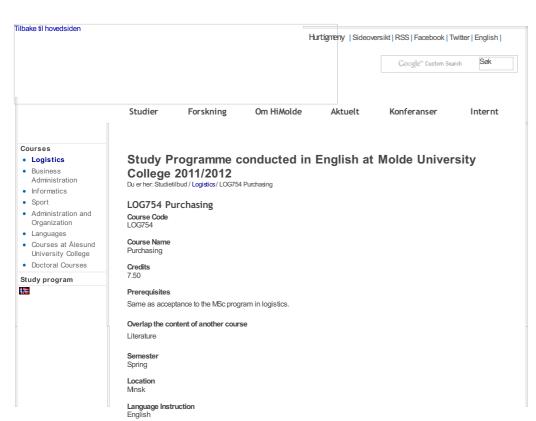
### Learning outcome

After finishing the course, students should have knowledge and analytical skills enabling them to identify and formulate mathematically various optimization problems encounered in quantitative logistics, solve linear optimization models using software tools, e.g. AMPL and CPLEX, interprete and analyze solutions.

The course is a combination of selected topics in quantitative logistics and an introduction to model building with the use of software programmes to solve problems. The mathematical optimization models will be related to logistics problems taken from production planning, distribution planning, location, assignment, network design and routing. The course also deals with logical relations and the use of discrete variables in modeling. To solve and analyse the models the software programmes AMPL and CPLEX will be used.

### Literature

Robert Fourer, David M. Gay, and Brian W. Kemighan, 2003. AMPL: A Modeling Language for Mathematical Programming, 2d edition. Duxbury Press / Brooks/Cole Publishing Company. Literature covering the assignments will be given in due course.



# Language Assignments and Evaluation English

### Instruction

8 hours of lecture per week, intensively in 4-5 weeks

Evaluation
4-hour written final examination that counts 60 % of the final grade.
2 individual written assignments that count 30%. Class participation counts 10 %.

### Support materials for examination

Grades Letter (A - F)

## Learning outcome

After finishing the course, the students should have knowledge about the mechanism of purchasing operations in the supply chain, and skills in application of contemporary technologies in procurement. The students should be able to understand how an enterprise fulfills economic transactions with its suppliers, and to create a list of the main conditions under which the relationship between supplier and buyer lined up the most effective manner. The course gives students the knowledge of relevant theory approaches and modern literature in the procurement area. As the relationship between procurement management theory and the analysis of economic enterprise problems is an important issue, the students after finishing the course should have ability to apply relevant theory to practical problems and for writing the Master's thesis.

### Content

The course includes different issues in purchasing sphere:
- supply chain management
- suppliers evaluation techniques

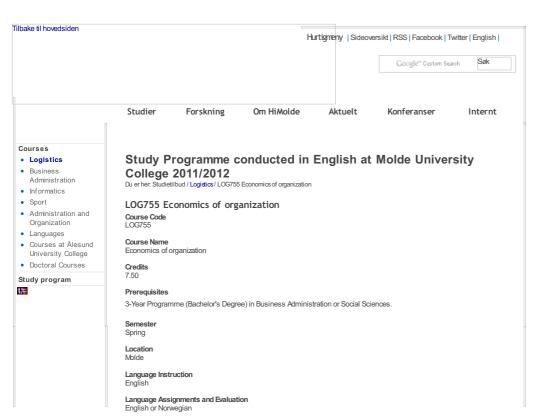
- resource-dependence theory
- relational contracting theory
   the deployment of information technologies in supplier-buyer relationships
   procurement efficiency evaluation

Participation of students through questions, comments and presentations in the classroom is important for making a good

## Literature

A J. Van Weele. Purchasing and Supply Chain Management, Fourth edition.

Arnt Buvik. Collection of Articles in Purchasing and Supply Theories for Master Students. Molde University College, Spring 2010.



Instruction
5 hours of lectures per week in the first half of the semester.

**Evaluation**4-hour written final examination, plus two case studies

### Support materials for examination

Grades Letter (A-F)

### Learning outcome

By completing the course the students will acquire

- knowledge on inter-organizational theory and the organization of business-to-business relationships,
- insight and knowledge about how business firms are to perform economic transactions with other firms, and
- knowledge about various conditions for efficient organization of business relationships.

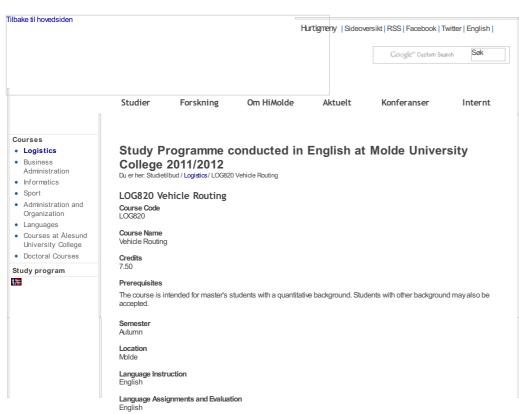
### Content

The course presents a broad scope of issues within inter-organizational theory. -transaction costs theory -principal-agent theory -resource-dependence theory -relational contracting theory

Participation of students through questions, comments and presentations in the classroom is important for making a good atmosphere of learning.

### Literature

Dourna, S. and Schreuder, H.: Economic Approaches To Organizations, Prentice Hall International, (UK) LTD., 2008. Van Weele, A. J.: Purchasing and Supply Chain Management, Thompson Learning, 2008. Artt Buvik (Compendium): Collection of Articles in Purchasing and Supply Theories for Master Students. Molde University College, Spring, 2010.



Instruction 3 hours of lectures per week

**Evaluation**4-hour written final examination.

Support materials for examination

Grades Letter (A-F)

### Learning outcome

By completing the course the student will get in-depth knowledge of methods and techniques for routing vehicles serving customers in variaous logistics settings.

### Content

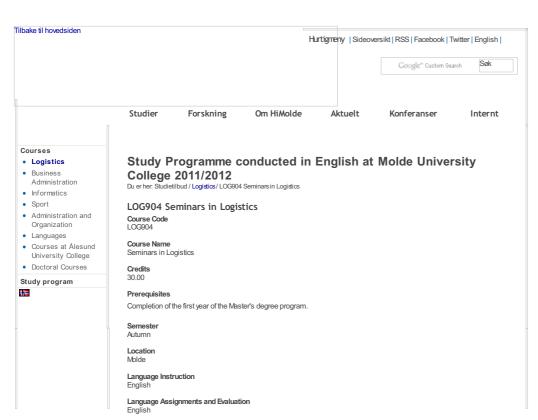
The course covers the following subject areas:

- Arc routing
- Traveling salesman problemVehicle routing

For these topics, emphasis will be placed on modelling problems and solving them with heuristics.

Inttel Forfatter
Compendium in Routing Halskau, Ø,
Planning Gribkovskaia,
The Vehicle Routing
Problem Toth P. V. Literature: **Tittel** Forlag ÅrsstallISBNType 2007 Gribkovskaia, I. SIAM Monographs on Discrete Mathematics and Applications, Philadelphia Toth, P., Vigo, D. 2002 Book

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### Instruction

Each seminar is usually taught Monday to Friday in one week, with a mix of lectures, assignments, group work and discussions. Attendance is mandatory to all classes.

The method of evaluation may vary from seminar to seminar, but a letter grade or pass/fail will be given for each seminar. The method used within a given seminar will be announced at the start of the week.

### Support materials for examination

### Grades

Varying from seminar to seminar.

### Learning outcome

After finishing the seminar series, the students will have gained a broader and deeper level of skills and understanding in several subject areas relevant to logistics and supply chain management. On top of the background established through the completion of the first year of the MSc program in logistics, the seminar series will provide additional theoretical and technical capabilities that will help the students in the research process for the master thesis

### Content

There are two types of seminars. Some cover themes that are important to logistics, but that for some reason have not been covered in other courses. Other seminars are very specialized, covering theoretical or practical aspects of themes already well covered in other courses. This way the seminar series brings both depth and width to the student's knowledge.

Examples of possible topics in this seminar:

- Vehicle routing
- Customer relationships
- Outsourcing
   Introduction to AMPL
   Business games
   Cross cultural management

- Production models Product variety
- Service management
   Distribution management
- Stochastic modeling and optimization

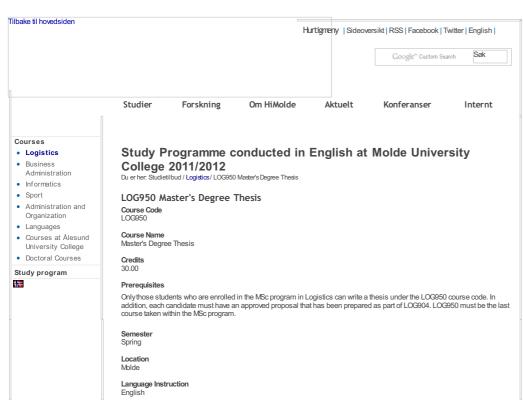
The series includes two seminars related to the master thesis, and both are compulsory for ordinary master degree students The first one, called "Research Design" is about how to write and organize a thesis, the second, "Proposal" includes the preparation and presentation (written and oral) of a proposal for the actual thesis to be done in Semester 4. The seminar "Proposal" will always be at the end of LOG904. However, the students are expected to spend all the time not spent on seminars on the preparation of their proposal and thesis. Hence, from a practical viewpoint, the proposal covers a substantial part of the third semester. These two seminars related to the master theses are only open to ordinary master degree students

Note: No other courses can usually be taken during autumns when following LOG904 to a full extent.

For exchange students it will be possible to follow individual seminars covering part of the semester with less than 30 ECTS or the whole semester with 30 ECTS

The exact program for the seminar series will normally be available before semester start at the MSc Logistics home page

There will be hand-outs and special material for each seminar. This will be decided by the lecturer responsible for each seminar.



# Language Assignments and Evaluation English

### Language Literature

English

Instruction
The master's thesis is an independent work done by a single student or two students together and supervised by a faculty advisor. It is the duty of each student to obtain a supervisor at the latest in the start of Semester 3.

Evaluation
Submission of the written thesis and an oral thesis defense are required. The final grade is a combination of grades received on the thesis and the oral presentation. Only one final grade will be presented to the student.

## Support materials for examination

Grades Letter (A-F)

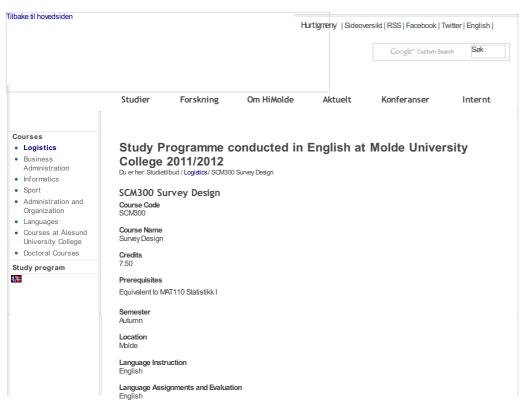
## Learning outcome

After completing the thesis the student will be able to

- work independently in projects work with a strong professional basis,
- combine methods and knowledge from courses and other sources within the logistics profession, and
   analyse and solve complex logistic problems based on scientific methods.

### Content

Athesis is an independent, extensive work that is done under the guidance of an advisor/professor in the discipline. Not more than two students can work on the same thesis. Candidates are relatively free to choose topics. Athesis can be either applied, related to a company or an agency/governmental body, or it can be a theoretical investigation.



### Instruction

2-3 hours per week for the first six weeks of the semester

100% of the overall grade for the course is based on a project report (75% written and 25% oral)

### Support materials for examination

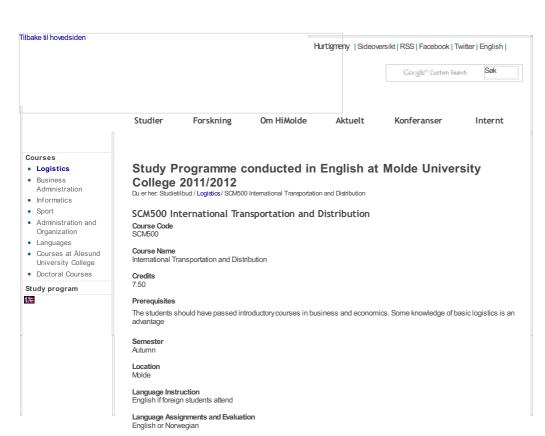
Grades Letter (A-F)

### Learning outcome

This course provides education and practical training in the design and delivery of surveys and the reporting and presentation of

Students will work, in groups, on a research project of their choice. The research project should be on a subject that is relevant to their chosen degree discipline and must involve the design, delivery and analysis of a survey instrument. At the start of the semester, students will attend a lecture programme that introduces them to survey research and design, sampling techniques, summarising data, statistical analysis and the written and oral presentation of a research project. During the semester, students will work on their research project under the guidance and supervision of the course leader. Their work will culminate in the submission of a written report and the delivery of an oral presentation.

Fink, A (2003). The survey handbook. 2nd edition. Sage Publications Limited, London. ISBN: 0-7619-2510-4 Gaur, AS. and Gaur, S.S. (2006). Statistical methods for practice and research: a guide to data analysis using SPSS. Sage Publications Limited, London. ISBN: 0-7619-3502-9



## Language Literature English or Norwegian

Instruction

3 hours of lecture and mandatory assignment

## Mandatory Assignments See Evaluation

Evaluation

4 hour written examination counts 70 %. The mandatory assignment counts 30 %. The final grade is calculated as a weighted sum of the grades given, and both the assignment and the written examination have to be passed to complete the course.

## Grades Letter (A-F)

### Learning outcome

At the end of the course, you should have an insight into topics of importance to management of international transport, with focus on international trade, and how the transportation network is designed to meet the demand from this trade. An introduction to documentation and insurance in international transport is also given. The course serves as a background for both strategic work and design of freight transport operations.

### Content

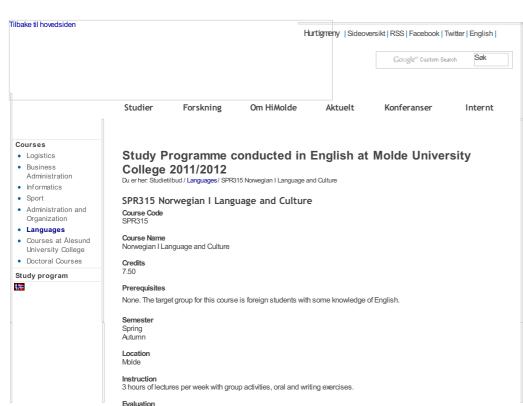
The course covers the following topics: International flow of goods, sales and payment terms, documentation and insurance in international transport, international air freight and liability for damage and loss of goods in seabome transport.

### Literature

David P and R Stewart. 2007. International Logistics. 2nd edition Articles/Handouts

Literature: Tittel	Forfatter	Forlag	Årssta	allISBN	Туре
International logistics. The management of international trade operations	David, Pierre and Richard Stewart	Thomsor	2008	978-0-7592- 9143-7	Bok

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4-hour written final examination including oral evaluation. The examinations are given both in the autumn and spring.

### Support materials for examination

## Grades Letter (A-F)

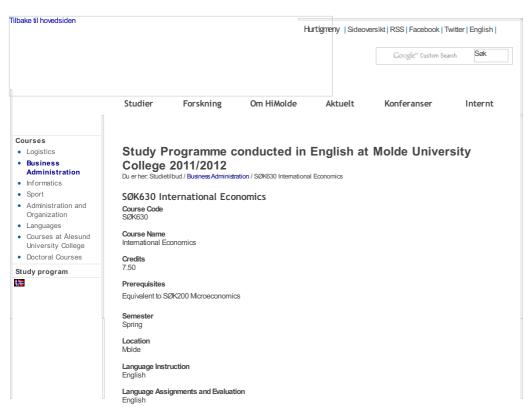
### Learning outcome

To teach students Norwegian, both the grammar and vocabulary. Students should be able to understand everyday conversations and be able to communicate orally and in writing, so that they can read simple Norwegian text. Emphasis will be placed on intercultural training where students will receive an introduction to Norwegian society, particulty he local and county business settings, geography and nature, political system, health and welfare policies and social and cultural conditions.

A textbook and exercise book will be used to give elementary training in basic Norwegian grammar and vocabulary. In addition, a compendium with text and topics taken from local businesses, culture and history, along with practice exercises in communication in and outside of the classroom. Through group discussions of selected topics the student will learn about Norwegian society, starting with school and local surroundings. Both the textbook and selected texts will be the basis for written and oral training.

Literature: Tittel Engelsk-norsk blå ordbok Forfatter Forlag ÅrsstallISBN Ellingsen, Elisabeth og Kirsti Mac Donald Cappelen 2003 82-02-22572-8 Bok Norsk på en to tre Norsk-engelsk blå (dictionary)

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Instruction
3 hours of lectures per week.

### Mandatory Assignments

Mandatory Assignments
The right to participate in th final exam is reserved for students who have fulfilled a work requirement. Details about the work requirement will be announced when the course starts.

Evaluation
4-hour written final examination (100%).

## Support materials for examination

Grades Letter (A-F)

## Learning outcome

The course discusses different perspectives of international business and economics. The central goals of this course are to show the benefits from trade, give an introduction to cross border investments and demonstrate the competitive aspects of international trade. The syllabus will be in English, so that this course can be taken by exchange students.

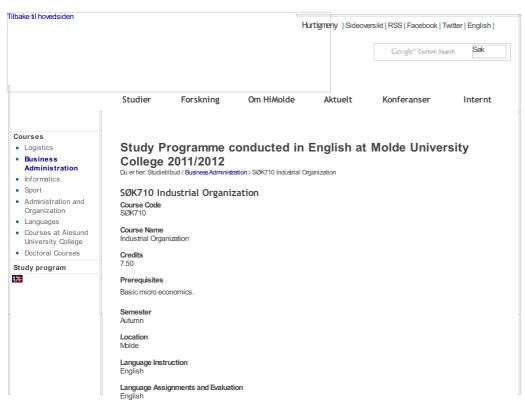
### Content

The course covers the following topics

- Rey data about global economics
   Trade theory
   International investment
   Various forms of welfare theory related to trade
- Protectionism Aspects of competition

## Literature

Krugman and Obstfeld: International Economics: Theory and Policy (8th Ed.). Pearson/Addison-Wesley, 2009.



Instruction 3 hours of lectures per week.

Evaluation

One compulsory assignment that counts 30% of the final grade. 4-hour written final examination that counts 70%. The final grade is a calculated a weighted sum of the grades given, regardless of a pass / non pass in the individual grades given.

### Support materials for examination

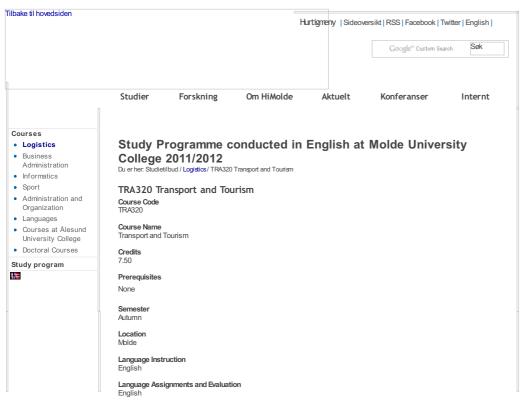
Grades Letter (A - F)

### Learning outcome

To provide insight into modern idustrial organization theory in order to enable the students to analyse strategic interactions among firms operating in makets with less than perfect competition.

The course provides an introduction to basic (non-cooperative) game theory, which is applied to the study of strategic interaction among firms operating in imperfectly competitive markets. Topics:

- Basic non-cooperative game theory
- Tactical decisions regardin what and how much to supply
- Tactical decisions regarding what price to charge, including tacit collusion
   Strategic decisions in order to avoid or limit competition



**Instruction** 2-3 hours of lecture per week

**Evaluation**A4 hour written exam worth 100% of the overall grade for the course.

### Support materials for examination

Grades Letter (A-F)

### Learning outcome

This course provides a study of the tourist transport system and the way in which it is organised and managed.

Introduction to the tourist transport system

- Tourist transport concepts and methods of analysis
- Demand for tourist transport products, services and information

Organising the tourist transport system

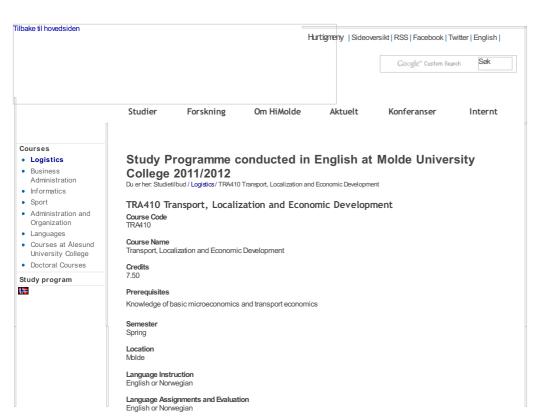
- Supply of tourist transport products, services and information
- Macro-environmental factors affecting tourist transport

Managing the tourist transport system

- Business strategies relating to the management of tourist transport
- Future challenges and opportunities for tourist transport

### Literature

Holloway, J.C., Davidson, R. and Humphreys, C. (2009). **The business of tourism**. 8th edition. Pearson Education Limited, Essex ISBN: 0-273-71710-3 Page, S. (2009). **Transport and tourism: global perspectives**. 3rd edition. Pearson Education Limited, Essex ISBN: 0-273-71970-X



# Language Literature English or Norwegian

Instruction 2 -3 hours of lectures per week and practice sessions

### Mandatory Assignments

See Evaluation

4 hour written examination counts 70 %. The mandatory assignment counts 30 %. The final grade is calculated as a weighted sum of the grades given, and both the assignment and the written examination have to be passed to complete the course

### Support materials for examination

Grades Letter (A-F)

### Learning outcome

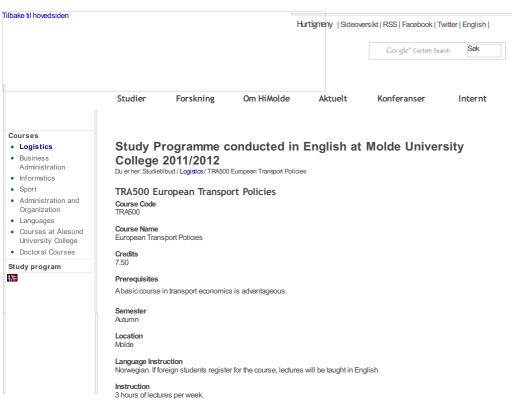
You should get an understanding of how economic forces determine the localization of economic activities: businesses, trade, cities, etc. Special attention will be payed to the importance of transport and transport infrastructure as means for regional economic development, and how the economic development effects are measured. At the end of the course, you should be able to advise companies and public authorities about how transportation systems can affect economic development and localisation behaviour. The outcome can roughly be seen as twofold:

- The student should become able to demand and utilize relevant R&D information about this topic as input for strategic planning purposes (e.g. when designing land use and transport plans, or location planning of specific companies).
- 2. The course should give a basis for further studies within this field

The first part of the course will be an introduction to the major economic theories governing the localization of economic activity. The second part of the course presents economic theories and models that focus more specifically on the importance of transport and transport infrastructure. Theories and models are supported by results from field studies.

### Literature

Bråthen S., ed. Paper collection Handouts



Mandatory Assignments
Assignment to be submitted and approved before final examinations.

 $\label{eq:continuous} \textbf{Evaluation} \\ \textbf{A4-hour written final examination counts 70 \% of the final grade. The rest is evaluated as a group presentation on free chosen transport subjects (30%).}$ 

Support materials for examination

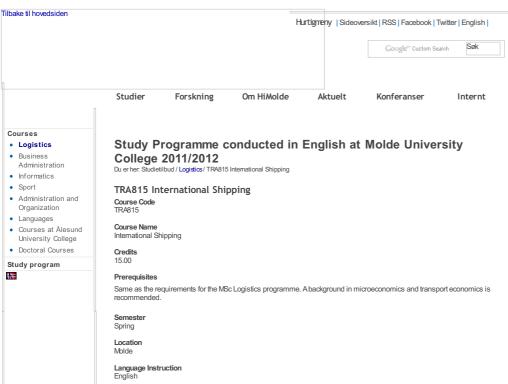
Grades Letter (A - F)

Learning outcome

The course gives an insight into European transport policies with emphasis on EU transport policies. The student will be able to solve transport policy problems and give advices on transport policy issues.

Focus will be on European transport policies in particular, the trans-European network (TEN) and EU transport policy documents. The course covers the transport of both passengers and goods by different modes of transportation. Questions about infrastructure, environment, fees and pricing policies and their impact on Norway will be discussed.

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Language Assignments and Evaluation

Language Literature English

### Instruction

4 hours of lectures and seminars per week. The lecturing is paused when other intensive seminars are running.

An essay on a selected topic related to international shipping counts 40% of the final grade. The essay is normally to be written by two or three students together, and only one common grade is given to the group. The deadline for submission of the essay is the first Sunday after May 1.

A4-hour written final individual examination counts 60% of the grade. The final grade is a weighted sum of the grades given, regardless of a pass / non pass in the part-exams

### Support materials for examination

Grades Letter (A-F)

## Learning outcome

The successful candidate will have

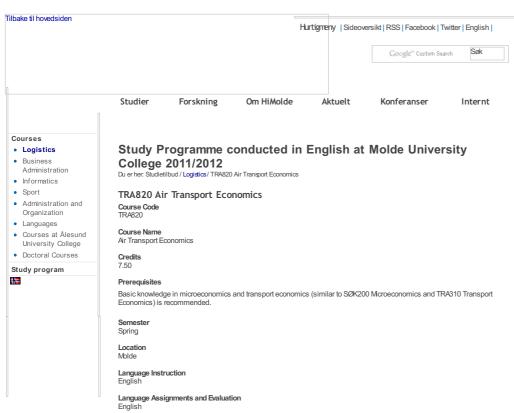
- Obtained a good overview of international shipping markets, including broad patterns of seaborne trade, and the markets for new and second-hand tonnage, including the market for demolition

  Obtained a thorough knowledge about the international regulatory regime of international shipping, including elements of
- global agreements, and the processes leading up to such agreements
- Obtained in-depth knowledge about one selected aspect of international shipping chosen as a topic for the essay
- Improved his/her analytical and writing abilities through the guided process of essay-writing

The shipping markets. Tramp trade or dry cargo spot market trading and liner conferences. Market for transport of goods in bulk and containers. Different market requirements and technical and organizational solutions. The role of different players in international shipping. Shipping law and international shipping policies. Efficiency and profitability of shipping markets. International procedures and contracts. Shipping registers, flag of convenience, classification. Shipping and the environment. Port development, policy, pricing and efficiency. The role of shipping in modern supply chains. Current international shipping problems and developments are analyzed.

### Literature

Stopford, Martin. 2009. Maritime Economics. 3rd edition. Routledge Handouts, articles and an NMU booklet on maritime supply chains



Instruction 3 hours of lectures per week

Evaluation A semester paper (50 %) and a 4 hour written exam (50 %).

Support materials for examination

Grades Letter (A-F)

Learning outcome

This course provides an analysis of the key economic issues facing the air transport industry.

The course focuses on three main areas:

- 1. Air transport supply and demand
- 2. Air transport policy and regulation
- 3. The economics of airlines and airports

Doganis, R. (2002). **Hying off course: the economics of international airlines**. 3rd edition. Routledge, London. ISBN: 0-415-21323-1

Graham, A (2003). Managing airports: an international perspective. 2nd edition. Butterworth-Heinemann, Oxford. ISBN: 0-7506-5917-3
Additional reading from recently published books, journals and magazines will be recommended during the course