NORWEGIAN SCHOOL OF MANAGEMENT BI
Sandvika Campus

BI

Master of Science Program
Student Handbook
2000/2001

Introduction

The Master of Science Student Handbook contains information on the Administration, the procedures of the Master of Science program and the courses taught in the Master of Science program. The MSc Administration takes it for granted that students in the Master of Science program have read the Student Handbook.

The information in this Student Handbook will also be available on the Internet. This hard copy version reflects the state of affairs at the time of printing (end of June 2000) and is liable to change. ***In order to avail of the latest updated information students should always check the Master of Science web pages.***

The Student Handbook information on the Internet will be decisive.

MSc Program - Faculty and Administration

Faculty - Dean and Program Directors

Professor Fred Selnes
Dean of the MSc Program
Office number 34-20 Telephone 67 55 73 32

Associate Professor Dag Michalsen
Program Director, Financial Economics
Office number 24-42 Telephone 67 55 71 02

Associate Professor Lars Huemer
Program Director, International Business Strategy
Office number 42-09 Telephone 67 55 72 76

Associate Professor Hans Mathias Thjømøe
Program Director, Marketing
Office number 34-18 Telephone 67 55 73 13

Administration

The MSc Administration is located in block 22 (i.e. second block, second floor). Here you will also find the International Office, the Career Advisory Service, the Examination Office and the Doctoral Program administration.

Stein A. Ytterdahl

Vice President Academic Programs

Duties: Policy implementation and overall co-ordination of all study programs and student services at Sandvika Campus. Member of the School's executive management group. Reports to the President (Rektor).

Office number 22-16 Telephone 67 55 76 42

MSc Administration:

Feite van Dijk

Director of Studies, MSc Program/International Office

Duties: Responsible for the quality profile of the MSc Program and services, including information, admission, marketing, and liaison inside and outside the MSc Program. Reports to the Vice President Academic Programs.

Office number 22-18 Telephone 67 55 76 56

Dóra S. Sigurdardóttir

Executive Officer, MSc Program

Duties: Coordination of courses and time tables for the MSc Program, faculty contacts, Student Handbook, student information and counseling, budgets, marketing, quality control of office routines. Reports to the Director of Studies, MSc Program/International Office

Office number 22-14 Telephone 67 55 76 59

Linda Hamsund

Secretary, MSc Program

Duties: Coordination of the admission of MSc students, student information, front office duties. Reports to Director of Studies MSc Program/International Office

Office number 22-10 Telephone 67 55 77 11

International Office Administration:

Ellen Tobiasson

International Coordinator, International Programs
Duties: Administrative support for International Office. Main responsibility: incoming students. Reports to Director of Studies MSc Program/International Office

Office number 22-21 Telephone 67 55 76 57

Helle Simensen

International Coordinator, International Programs
Duties: Administrative support for International Office. Main responsibility: outgoing students. Reports to Director of Studies MSc Program/International Office

Office number 22-20 Telephone 67 55 73 54

Career Advisory Services:

Janne Kvifte

Coordinator Career Advisory Services
Duties: Student information, internal and external promotion of Career and Placement Services, assistance in job hunting for the graduation classes, bridge between School and job market. Reports to Vice President Academic Programs

Office number 22-22 Telephone 67 55 76 55

Doctoral program:

Valborg Stølan

Executive officer Doctoral Program Duties: Administrative coordination Doctoral Program. Reports to Director of Studies MSc Program/International Office

Office number 22-13 Telephone 67 55 74 22

Examination Office:

Kari Brinchmann

Office number 22-32 Telephone 67 55 76 45

Grethe Loe

Office number 22-30 Telephone 67 55 76 44

Studying at the Norwegian School of Management BI

In this section you will find important information about your study situation at the Norwegian School of Management BI. Please read this information carefully since it will be of great help to you when adjusting to your new study situation. *Please also check the MSc web pages. They basically contain the same information as this student handbook but will be updated regularly.*

The Student Card

As a student of the Norwegian School of Management you will be issued with a student card that has several functions: student identification, access card, copy card. Refer to below for more information.

The Think Tank

- The Think Tank is the graduate students' own study facility with 24-hour access. In the Think Tank you will find group rooms available as well as a computer-lab with IBM-compatible PCs. The Think Tank is located just across the river from the main building, passed the parking house. All the group rooms in the Think Tank are equipped with IBM-compatible PCs which are connected to the network.
- Telephone (67 54 55 77) and fax (67 54 53 30) are free of charge from the Think Tank for calls within the local area (i.e. numbers starting with 22, 66 and 67). The copy/printer machine is operated with your student card. Copies/prints cost 0.40 NOK.
- Your student card is also your Think Tank access card

Your access to the Think Tank is strictly personal. It is strictly forbidden to lend your access card to others, or to let others into the Think Tank using your card. Make sure you close the front door properly when you enter or leave the Think Tank.

When you are in the Think Tank, please make sure to have your student card with you at all times. The security guard may request to see other valid identification in addition to the access card.

When you are in the Think Tank, please follow the "House Rules" which are listed on the information board on the ground floor.

Normally, the number of group rooms and personal computers are sufficient to meet the needs of all graduate students at NSM BI. There are, however, peak periods when shortages occur and some students need more meeting space or computer equipment than what is generally available. It is of course advisable that students plan ahead and organize their work so as to avoid these peak periods.

If a particular professor has reserved some of the rooms for group work, you are asked to respect the special 'Reserved' signs, which will be posted on the rooms accordingly.

Library Facilities/Information Center

NSM BI has made considerable investments over the past few years in building up its' library services. Students are encouraged to get acquainted with the Library as soon as possible after they have started the program. The Library organizes information meetings for new students to present the various library services and to explain the importance of using the Library intensively.

Other Computer Facilities

In addition to computer facilities in the Think Tank, the following facilities are available in the NSM BI main building. These computer facilities are generally used by the students in the undergraduate programs.

Computer room

There are approximately 70 PCs (Digital Venturis with Pentium Processors) with Windows 95 operating system and Hewlett-Packard and Postscript Laser printers available for your use. The computer room remains open between 08:00 - 23:30 Monday to Friday and also between 09:00 - 18:00 on Saturday and Sunday in term time, except when it is being used for formal training sessions of which you will be advised.

Computer discs can be purchased from the Juul Møller Bookstore, where you can also buy computer manuals. Otherwise, manuals are available on loan from the Library. For the purchase of hardware, please consult the Computer Department.

Telephone- / Fax- / Photocopying Services

Telephone

You may use the telephone in the Think Tank for local calls. Pay telephones are located throughout the NSM campus, in the Glass Avenue and in the basement.

Fax

You may also send faxes from the Think Tank (local area). For faxing outside the local area, please contact the MSc Administration for assistance. If you need to receive faxes, please note the following fax numbers:

- MSc Administration: (+47) 67 55 76 60
- NSM Reception: (+47) 67 55 76 70

Please ask the sender to use your name as well as your status (i.e. student MSc).

Photocopying

Photocopying machines are located,

- in the Library
- in the Think Tank
- in the computer room in the main building

These machines are operated with your student card. Copies/prints cost NOK 0.40.

A Photocopying machine is also located,

- on the basement floor (downstairs by the Student Union)

Photocopying cards for this machine may be purchased from the Student Union Reception

Purchase of Books and Other Teaching Materials

Books

- Books are available for purchase from the Juul Møller Bookstore.
- Books are sold to students at a price normally lower than they could otherwise be purchased in Norway.

Other Teaching Materials

Teaching materials (other than books) will for some courses be provided in the form of a "reading package" or a compendium. These materials will either be handed out in class or be available from the Juul Møller Bookstore (to purchase) or from the Library (for photocopying).

The Master of Science Program

Academic Calendar for the Master of Science Program 2000/2001

Fall term

September	1	Thesis deadline for graduating students 1998-2000
	11	Introduction week begins
	11	Welcome ceremony
	18	First day of classes
	22	Course-registration deadline
October	16-21	Examination registration week
November	24	Final day of classes
	27	Examination period starts
December	15	Examination period ends

Winter term

January	2	First day of classes
	5	Course-registration deadline
	22-27	Examination registration week
	25	Grade release, fall term
February		
	8	Deadline, request for explanation of grades
March	9	Final day of classes
	12	Examination period starts
	23	Examination period ends

Spring term

March	26	First day of classes
	30	Course-registration deadline
May	30.4 – 4	Examination registration week
	3	Grade release, winter term
	17	Deadline, request for explanation of grades
June	8	Final day of classes
	11	Examination period starts
	30	Examination period ends
August	14	Grade release, spring term
September	1	Thesis deadline for graduating students 1998-2000
	11	Deadline, request for explanation of grades

Master of Science Information Board

The Master of Science Information Board is located in the Glass Avenue. Information and messages from the MSc Administration including information about courses and timetable changes as well as other important information are put up on the Information Board. The MSc Administration will also use email to convey important information to the students. The email address the administration uses is your regular student email: make sure you check it!
Students are themselves responsible for obtaining important information by checking the Information Board on a regular basis.

Course and Examination Registration

Program structure descriptions for each Master of Science specialization is listed on pages 17 to 22 in this Student Handbook. The program structure descriptions specify the normal study progression plan for each specialization. **Students should complete the mandatory courses according to the normal study progression plan.** Students are automatically registered for the mandatory courses.
Students must register separately and individually for each elective course. Registration for a course also includes registration for the examination for that course.

- Course-registration for the elective courses takes place within the first week of each term. 'Course-registration' forms are available from the MSc Administration (Linda Hamsund).
- Each student is responsible for signing up for each specific elective course he/she is planning to take this academic year.
- During the first week of each term, students may change their course-registrations for elective courses. Forms for course-registration changes are available from the MSc Administration (Linda Hamsund). It is not possible to change a course registration after this period.

For each term a so-called '**examination registration week**' is scheduled (refer to the academic calendar). During the examination registration week lists of students registered for an examination will be available for each course and be put on the Master of Science Information Board. During the examination registration week the students may change their examination registration. The following changes are possible:

1. The student may register to take examination(s) in courses that the student did not register for in the term concerned. Note that it is not allowed to register for an examination of a course if one has not been previously (i.e. in a previous term) registered for that course and that also §30-5 sub. 'Formal Examination Procedure' of the academic rules and regulations of the Master of Science program applies. Note also that a retake fee will be charged.
2. The student may drop out from examination(s) in courses that the student did register for in the term concerned. **Note that it is not allowed to drop out from examination(s) of mandatory courses.**

Forms to change the examination registration are available from the MSc Administration (Linda Hamsund). If the students do not undertake any action in the Examination Registration week this is considered to be a confirmation of the examination registration as published on the announcement board. **It is not possible to change the examination registration for a term after the examination registration week of that term.**

Minimum Number of Students in Master of Science Courses

Dean of the MSc Program can decide to cancel a non-mandatory Master of Science course if the number of students registered for the course is below 20. Cancellation of courses will be announced on the Master of Science Information Board prior to the term in question.

Application for Course Waivers or Transfer of Credits

As stated in the academic rules and regulations of the MSc Program (ref.§30.4) there are two ways of being exempted from the degree requirements of the MSc Program.

The first way is through a *course waiver*. A course waiver means that the requirements to take a specific course in the MSc Program will be waived based on the fact that you have done a similar course in your previous education. Instead of the waived course you will take another course from the MSc Program.

The second way is through a *transfer of credits*. A transfer of credits means that a credit gained in previous *graduate* education or during the exchange program of the MSc Program will be transferred to the MSc Program and will substitute a similar MSc course. In this case you will not take another course from the MSc Program.

An application for a course waiver or a transfer of credit should be submitted to the MSc Administration. In case of a *course waiver* the application should clearly state which courses you want to see waived *and* which courses you will take instead of these waived courses. In case of a transfer of credits the application should clearly state for which course(s) the transferred course(s) would substitute. In both cases you have to attach course syllabi/course descriptions of the courses involved and transcripts proving that you have passed the examination for these courses.

You should apply for a course waiver or a transfer of credits *at least two weeks* before the term in which the course(s) concerned are taught starts.

Permitted Aids for Exams

Permitted aids for examinations are stated in the course syllabi handed out at the beginning of each course. If no aids are permitted, students may still use dictionaries (clean copies) and Texas Instrument calculator models 106, 503, 507 and 1105.

Term Papers

- Deadlines for term papers must be strictly observed; individual exceptions will not be considered. Candidates who cannot deliver in time must wait until the next time the course is offered
- Term Papers are always submitted in two copies and in some type of binding with the candidate's registration number at the top right hand corner of the paper
- There should be a cover page with the following information;

  Paper in;.....(course code and name)
  For;.....(course of study, i.e. MSc, MBA)
  Date turned in;.....

- The deadline is 2 p.m. on the announced day if nothing else is stated.
- Do not forget to fill in and deliver the self-declaration form, available at the Information Desk on the ground floor or the MSc Administration.
- All term papers should be handed in at NSM's Information Desk on the ground floor, unless otherwise stated by the lecturer.

References and Literature Lists

At an institute of higher learning, source references and literature lists are important for all academic works (student papers, research papers, articles, books). References and literature lists help readers to find material which may be of interest to them. References provide information on which material is your own and which is borrowed from other sources. In this way, the information and quotes which have been used by you, can be checked and verified.

There are several ways of citing a reference. NSM's library has a homepage on the Internet with the address *http://www.bi.no/library/index.nsf*. On this homepage, you'll find several examples of how to cite a reference. For student papers, it's really up to yourself how you do it, just as long as you are consistent. Make sure that you include all relevant material. The library at NSM in Sandvika has, in addition, made a set of guidelines entitled "Advice on Writing Papers" which touch on various aspects of writing a student paper. These guidelines contain references to literature on research method, use of language etc.

When a paper is evaluated, much emphasis is put on proper documentation of sources.

Announcement of Grades

After each exam period grades will be announced on lists in the Glass Avenue. Preliminary transcripts can be obtained throughout the year from the Information Desk in the Glass Avenue. The MSc Administration will send out a preliminary transcript after the grade release deadline of the spring term of the first year to all the students of the first year (August 2000).

Master of Science Thesis

Basic Information

- The thesis shall generally be written in groups of two students. However, students who wish to write their thesis individually may apply for this.
- The thesis represents 10 credits and is a vital part of the degree requirements as it accounts for 20 % of the total workload in the two-year program.
- For the Students of the **2000-2002** program, the thesis consists of two deliverables: the *preliminary thesis report* that counts for 20 % of the thesis grade and the *final thesis* which counts for 80 % of the thesis grade. For the students of the **1999-2001 Program** there is just one deliverable: the final thesis.

How to Get Started

- Each student is responsible for selecting a thesis topic.
- The topic should be related to the student's specialization in the Master of Science program. Select an area that you are particularly interested in, that you would like to know more about and work in depth with. In other words, select the *topic you want to write about.*
- Try to formulate a *problem definition.* To narrow the topic even more, think about the research questions you would address.
- Students are expected to find a thesis supervisor themselves. A first step could be to discuss your thoughts about a thesis topic with the **program director of your specialization.** He could probably suggest to you a person you can approach for further discussions. Make an appointment with this person to discuss your proposed thesis topic. Make sure that you are well prepared.
- When you have found an interesting topic, you should focus on the *theory foundation* and the *research methods* you would use. These details should be included in the **Thesis Registration Form** which is obtained from the MSc Administration. This form states your thesis topic, your supervisor and thesis delivery date and is approved and signed by your program director and **submitted to the MSc Administration by May 1 of your first year of studies.**
- In the first year of the Master of Science program (generally in the Spring term) each specialization will organize a **thesis seminar** that will go into the questions mentioned above. The seminar will be listed in the timetable and posted on the MSc Bulletin Board**: make sure that you attend it!**

Information in the Library
The Library is a vital source of information during the thesis work. In addition to books, periodicals and information from CD-ROMs, the library has a number of theses available. They are mainly "Siviløkonom"-theses, but a limited number of Master of Science-theses may also be found there. We recommend that you use all the information available for your thesis work. When the theses are graded, they become available in the library unless the content is confidential.

Thesis Progress and Deadlines
In accordance with §30-6 of the Academic Regulations for the Degree of Master of Science the following deadlines for deliverables have to be adhered to by students of the 2000-2002 program:
May 1 in the first year of the MSc Program: deadline for submission of Thesis Registration form.
January 10 in the second year of the MSc Program: deadline for the submission of the Preliminary Thesis Report.
September 1 after the second year of the MSc Program: Thesis submission.
For students of the 1999-2001 program only the Thesis submission deadline of September 1 applies!

Formal Requirements
- The thesis must be type-written on A4 size paper, with line spacing of 1 1/2
- Recommended layout is 5 cm left margin, 1 cm right margin, 2 cm at the top of the page and 3 cm at the bottom. All pages must be numbered. The thesis should include a table of contents
- The thesis must be submitted in - 5 - five - copies.
- The cover of the thesis must contain the following:
    - Norwegian School of Management BI - Thesis
    - Your specialization (i.e. Energy Management)
    - Date of submission
    - Thesis title
    - Student registration number and name

Confidentiality
- If the thesis is to be held confidential, the student must submit an application for this to the MSc Administration. Confidentiality is, as a matter of principle, not desired from the School's point of view, and is normally granted only if the thesis is based on sensitive data from companies or organizations asking the student(s) to do the thesis work also for their purposes.
- Application for having a thesis confidential shall be approved by the supervisor and the MSc Administration as early as possible and well before submission.
- Generally, theses are held confidential for a maximum of two years from the date of submission.

Submission
Thesis:
- Submission deadline of the thesis is September 1 at the end of the second year. Also refer to §30-6 of the academic rules and regulations of the Master of Science program.
- The thesis should be submitted in five copies to Norwegian School of Management BI - Information Desk on the ground floor or mailed to the School's address.
- The thesis will be registered only if the correct numbers of copies are delivered; thesis registration takes place only when all formal requirements are fulfilled. The student will receive a receipt for the submitted thesis.
- A thesis which is formally handed in can not be withdrawn. The supervisor's role changes after submission to that of an examiner. The thesis is always graded by two examiners and the co-grader is appointed by the supervisor.
- Grade for the thesis will be announced seven weeks after the date of submission.
- After grading, three copies of the thesis are kept in the Library and two copies are kept by the examiners.
- Confidential theses will be safely locked up during the period of confidentiality.

Preliminary Thesis Report (applies for 2000-2002 students):

- Submission deadline is January 10 in the second year of the MSc Program.
- The Preliminary Thesis report should be submitted in two copies to Norwegian School of Management BI - Information Desk on the ground floor or mailed to the School's address. The student will receive a receipt for the submitted Preliminary Thesis report.
- Grade for the Preliminary Thesis Report will be announced seven weeks after the date of submission.
- Students will get a grade for the preliminary thesis report, which counts for 20% of the final grade for the thesis. There is no possibility to improve the grade for a passed preliminary thesis report. If the student fails the preliminary thesis report, there will be a chance to improve the grade. This is done in agreement with the thesis supervisor within April 15. If the improved grade still is not a pass grade, the thesis will be graded without the preliminary thesis report, but the final grade will be 3/10 of a grade point lower.

Copyright

- The Norwegian School of Management BI will have the right to use theses or parts of theses for educational purposes. The theses may also be used in research projects conducted by the Norwegian School of Management BI's faculty.
- Beyond that, the students have complete copyright.
- The thesis must be available for other students in the Library.

Thesis Formalities

It is strongly suggested that the thesis is prepared in accordance with a reputable standard specification. One such standard is the *Publication Manual of the American Psychological Association*, published by the American Psychological Association, Washington, DC. This guidebook covers all aspects of formal requirements.

International Exchange Programs

To give our students hands-on international experience, and a better opportunity to prepare for an international business career, the Norwegian School of Management BI has built up an international network with a number of prestigious business schools in the USA, Canada, Asia and Europe. Students in the second year of the Master of Science Program, have the opportunity to spend one term at a university abroad as an integrated part of the program at NSM.

NSM will transfer courses and credits obtained while studying at one of our partner universities, allowing students participating in the exchange programs to complete their studies within the given time frame. The transfer of credit is subject to approval by the Dean of the Master of Science program and the application procedure mentioned on page 14 should be adhered to.

When is the Exchange Taking Place

The exchange takes place in the Fall term of the second year.

Application Deadline

February 15 each year. Note that admission to the exchange program is competitive!

Where Can You Get Information

The booklet "Student Exchange Programs" gives practical information about the exchange programs as well as a brief presentation of the different partner universities. There are information folders available for each university at the Library. These contain more detailed information about the various programs, courses, etc. Contact Helle Simensen, for further information. There is an information meeting about the exchange program in the fall each year. Questions concerning the exchange programs should be directed to Helle Simensen office 22-20 or Ellen Tobiasson, office 22-21.

Program Structure

There are three type of courses in the MSc Program: Common Courses, Regular Specialization Courses and Advanced Specialization Courses. Common Courses and Regular Specialization Courses are taken in the **first year** of the MSc Program. Advanced Specialization courses are taken in the **second year** of the MSc Program. As a general rule first year MSc students are not allowed to register for Advanced Specialization Courses. Exceptions to this rule may occur in case of course waivers or transfer of credits, but only after explicit permission has been given by the MSc Program administration.

In order to fulfill the Degree Requirements students should follow the study progression plan for their chosen specialization. **Mandatory courses should be taken in the term they are listed!!** Non mandatory courses are listed under 'electives ' with just the course codes. There is one study progression plan for each Master of Science specialization.

Please note that some courses require pre-requisites. The faculty member in charge of the course may decide to close the course for students who do not fulfill the prerequisites.

Make sure that you register for the number of courses you need in order to fulfill the Degree Requirements. The Degree Requirements are listed in §30-4 of the Academic Regulations for the Degree of Master of Science. *Note that change of the mandatory course portfolio and other exemptions from degree requirements are subject to the Master of Science Dean's discretion* (Ref. §30.4 of the academic rules and regulations of the MSc Program).

Financial Economics

Degree Requirements: 5 Common courses, 5 Specialization courses, 5 Advanced specialization courses, Thesis

Financial Economics 1999-2001; Second Year (FE 2-2)

Fall *GRA6520 Financial Derivatives*; **Mandatory Advanced specialization course**
Elective specialization courses (GRA6508 and/or GRA6510 and/or GRA6604)
Thesis work

Winter *GRA6522 Fixed Income Securities*; **Mandatory Advanced specialization course**
GRA6523 International Financial Markets and Investments; **Mandatory Advanced specialization course**
Elective specialization courses (GRA6502 and/or GRA6507 and/or GRA6602 and/or GRA6603))
Thesis work

Spring *GRA6521 Corporate Governance and Control;* **Mandatory Advanced specialization course**
GRA6524 Applied Valuation; **Mandatory Advanced specialization course**
Elective specialization courses (GRA6506 and/or GRA6607 and/or GRA6611)
Thesis work

Financial Economics 2000-2002; First Year (FE 2-1)

Fall *GRA6020 Multivariate Statistics*; **Mandatory Common course**
GRA6021 Introduction to Games and Information; **Mandatory Common course**
GRA6501 Asset Pricing; **Mandatory Specialization course**
GRA6025 Financial Management; **Common Course** or *Elective Common Course* GRA6026 *Organization Science*
Elective specialization course from (GRA6508 and/or GRA6510 and/or GRA6604)

Winter *GRA6022 Intermediate Microeconomics;* **Mandatory Common Course**
GRA6023 Research Methodology; **Mandatory Common course**
GRA6601 Economics of Information; **Mandatory Specialization course**
Elective common course and/or specialization courses (GRA6014 and/or GRA6502 and/or GRA6507 and/or GRA6602 and/or GRA6603)

Spring *Elective specialization courses (GRA6024 and/orGRA6506 and/or GRA6607 and/or GRA6611)*

Financial Economics 2000-2002; Second Year (FE 2-2)

Fall *GRA6520 Financial Derivatives*; **Mandatory Advanced specialization course**
GRA6521 Corporate Governance and Control; **Mandatory Advanced specialization course**
Elective specialization courses (GRA6508 and/or GRA6510 and/or GRA6604)
Thesis work

Winter *GRA6522 Fixed Income Securities*; **Mandatory Advanced specialization course**
GRA6523 International Financial Markets and Investments; **Mandatory Advanced specialization course**
Elective specialization courses (GRA6502 and/or GRA6507 and/or GRA6602 and/or GRA6603)
Thesis work

Spring *GRA6524 Applied Valuation;* **Mandatory Advanced specialization course**
Elective specialization courses (GRA6506 and/or GRA6607 and/or GRA6611)
Thesis work

International Business Strategy

Degree Requirements: 5 Common courses, 5 Specialization courses,
5 Advanced specialization courses, Thesis

International Business Strategy 2000-2002; First Year (IBS 2-1)

Fall *GRA6020 Multivariate Statistics*; **Mandatory Common course**
GRA6021 Introduction to Games and Information; **Mandatory Common course**
GRA6801 Strategy Analysis; **Mandatory Regular Specialization course**
GRA6026 Organizational Science; **Common course** or
Elective Common Course (GRA6024 Corporate Finance)
Elective specialization course (GRA 6320 or GRA6323)

Winter *GRA6022 Intermediate Microeconomics;* **Mandatory Common Course**
GRA6023 Research Methodology; **Mandatory Common course**
GRA6805 Applied Strategy Research; **Mandatory Regular Specialization Course**
GRA6810 Strategic Alliances; **Mandatory Regular Specialization Course**
Elective Common Course (GRA6014 International Business Ethics)
Elective specialization course (GRA6324 or GRA6323)

Spring *Elective specialization courses (GRA6322, GRA6329, GRA6804)*

International Business Strategy 2000-2001; Second Year (IBS 2-2)

Fall *GRA6800 Strategic Dynamics*; **Mandatory Advanced Specialization Course**
Elective specialization course (GRA6320 or GRA6321)
Thesis work

Winter *GRA6327 Management and Control Issues in Multinational Enterprises;*
Mandatory Advanced Specialization course
GRA6806 Comparative Business Systems; **Mandatory Advanced Specialization course**
Elective specialization course (GRA6324)
Thesis work

Spring *GRA6808 Strategy Consulting Clinic;* **Mandatory Advanced Specialization Course**
GRA6416 Current Topics in Strategic Management; **Mandatory Advanced Specialization Course**
Thesis work

Marketing
1999-2001, Second Year (M 2-2)

Degree Requirements:	5 Common courses, 5 Specialization courses, 5 Advanced specialization courses, Thesis

Marketing 1999-2001; Second Year (M 2-2)

Fall *GRA6410 Advanced Topics in Consumer Behavior*; **Mandatory Advanced Specialization Course**
GRA6412 Interorganizational Relations; **Mandatory Advanced Specialization Course**
Thesis work

Winter *GRA6414 Advanced Marketing Research*; **Mandatory Advanced Specialization course**
GRA6411 Marketing Models and Decision Support; **Mandatory Advanced Specialization Course (to be replaced)**
Thesis work

Spring *GRA6421 Services Marketing;* **Mandatory Advanced Specialization Course**
Thesis work

Strategy
1999-2001, Second Year (S 2-2)

Degree Requirements:	5 Common courses, 5 Specialization courses, 5 Advanced specialization courses, Thesis

Strategy 1999-2001; Second Year (S 2-2)

Fall *Elective specialization course (GRA6802)*
Thesis work

Winter *Elective advanced specialization courses (GRA6806 and/or GRA6800 and/or GRA6327)*
Thesis work

Spring *GRA6808 Strategy Consulting Clinic;* **Mandatory Advanced Specialization Course**
GRA6416 Current Topics in Strategic Management; **Mandatory Advanced Specialization Course**

International Business
1999-2001, Second Year (IB 2-2)

Degree Requirements:	5 Common courses, 5 Specialization courses, 5 Advanced specialization courses, Thesis

International Business1999-2001; second year (IB 2-2)

Fall *GRA6412 Interorganizational Relations;* **Mandatory Advanced Specialization course**
Elective specialization course (GRA6802 or GRA6321).
Thesis work

Winter *GR6327 Management and Control Issues in Multinational Enterprises;*
Mandatory Advanced Specialization course
GRA6806 Comparative Business Systems; **Mandatory Advanced Specialization course**
Thesis work
Elective advanced specialization courses (GRA6800)

Spring *Elective advanced specialization course* (GRA*6416)*

Common Courses

GRA 6014 International Business Ethics

Program
Master of Science (common course)

Responsible for the course
Heidi von Weltzien Høivik

Department
Strategy

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
The aim of this course is to strengthen each participant's ability to identify, to reflect and respond to ethical management challenges in organizations. Studying ethical business dilemmas in depth will help participants to evaluate the variety of approaches available for the ethical decision-making process.

Prerequisites
None.

Compulsory literature
Green, Ronald M. 1994. *The ethical manager: A new method for business ethics.* N.Y.: MacMillan.
Dienhart, John W. 2000. Business, Institutions, and Ethics. Oxford, Oxford University Press.
Carroll, Stephen J. and Martin J. Gannon. 1997. *Ethical dimensions of international management.* Thousand Oaks, Calif.: Sage.
Additional articles and cases will be handed out. (preferably via web-page)

Recommended literature
None

Course outline
The theoretical core consists of a brief presentation of major moral philosophies, which have provided the core of rules and concepts of rightness and ethicalness in general. The focus is on their relevance with regard to the business environment. The practical core deals with applying and testing different methods of moral decision making in conjunction with concrete cases. Most of the case material will be based on international examples, but current Norwegian experiences will also be included where possible. Special attention will be given to business ethics decision-making in a cross cultural context. The focus will be on issues of the relationship of national cultural differences to ethical behaviors. Critical reading and evaluation of leading articles on ethics in management will be used to heighten participants' awareness of significant cultural perceptions, and different moral points of view.

Topics include:

- Basic issues: Ethics vs. Economics
- Ethical Theories Revisited
- Examples of Models for Ethical Reflection
- The Role of Opportunity and Conflict in Organizations
- Business Ethics in a Global Context (importance of culture)
- Ethics in Changing Organizations (compliancy vs. integrity approaches)
- Strategic Planning and Ethics

The learning mode of this course is action oriented. Virtually every topic will begin with a prepared case discussion allowing participants to apply moral reasoning skills. The subsequent discussions will not necessarily yield consensus, but are meant to create greater awareness of different thinking modes. For the above reasons this course requires **maximum** student participation. Those who cannot attend classes regularly should refrain from taking this course.

Computer-based tools
None.

Course structure
Lectures and class discussion.

Evaluation
One mid term paper, group assignment (40%)
Final term paper (groups of 1-3) (40%)
Participation in class (20%)

Evaluation code(s)
GRA60141

Aids at the examination
All

Makeup exam
Not possible because of combined grades

GRA 6020 Multivariate Statistics

Program
Master of Science (common course)

Responsible for the course
Ulf Henning Olsson

Department
Economics

Term
Fall

Credits/ECTS Credits
2/6

Objective
- To understand and be able to apply some of the most known multivariate statistical techniques to research problems in the student's discipline of interest.
- To illustrate the use of actual statistical software. It is the responsibility of the student to familiarize himself/herself with the fundamentals of this or similar statistical analysis software.
- To provide an understanding for the statistical assumptions underlying these techniques.

Prerequisites
An introductory course in statistics.

Compulsory literature
Hair, Joseph F. Jr., Rolph E. Anderson, Ronald L. Tatham and William C. Black. 1998. *Multivariate data analysis.* 5th ed. N.Y.: Macmillian.
Selected articles and handouts.

Recommended literature
Gujarati, Damodar N. 1995. *Basic econometrics.* 3rd ed. New York: McGraw-Hill.

Course outline
1. The idea of significance testing.
2. The linear regression model.
3. Factor analysis
4. Cluster analysis
5. Multi dimensional scaling

Computer-based tools
The course uses modern statistical software.

Evaluation
Term paper

Evaluation code(s)
GRA60201

Makeup exam
At the next regular exam.

GRA 6021 Introduction to Games and Information

Program
Master of Science (common course)

Responsible for the course
Julian Manning

Department
Economics

Term
Fall

Credits/ECTS Credits
2/6

Objective

Game theory is the study of strategic interactions between rational economic agents. By "rational" we mean that the actors recognize their mutual interdependence and are aware of the fact that other players are rational actors like themselves. The order in which the players move is crucial to the outcome of a game. Examples of games with both simultaneous and sequential moves are analyzed. Game theory has been critically important in understanding the role of information structures in market mechanisms. Private information problems (where one side of the market has information not available to the other side) are analyzed with examples from the labor market and the insurance market. Game theory is also used to highlight strategic decisions within market structure, international trade, and industrial organization.

Prerequisites
Intermediate microeconomics: consumer theory, production theory, market equilibrium theory. An example of a textbook covering the prerequisites is: Varian, H.: Intermediate Microeconomics. Fourth edition, Norton, 1996. Chapters 1-6, 12, 15, and 16-24.

Compulsory literature
Bierman, H. Scott and Luis Fernandez. 1998. *Game theory with economic applications.* 2nd ed. Reading, Mass.: Addison-Wesley. (Selected chapters).

Recommended literature
None.

Course outline

- Decisions under uncertainty
- Games with perfect information
- Games with private information
- Games with simultaneous moves
- Games with sequential moves

Evaluation
Three-hour written exam based on the required text and the lectures.

Evaluation code(s)
GRA60211

Aids at the examination
A non-programmable calculator is permitted.
Peter Berck & Knut Sydsæter: Economists' Mathematical Manual, Springer Verlag, 1991.

Makeup exam
At the next regular exam

GRA 6022 Intermediate Microeconomics

Program
Master of Science (common course)

Responsible for the course
Julian Manning

Department
Economics

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
To provide students with the necessary foundation for more advanced course work in Accounting, Marketing, Microeconomics, Finance and/or Strategy.

Prerequisites
Basic algebra and calculus.

Compulsory literature
Varian, Hal R. 1999. *Intermediate microeconomics: A modern approach.* New York: Norton.

Recommended literature
Varian, Hal R. and Theodore C. Bergstrom. 1999. *Workouts in intermediate microeconomics.* New York: Norton.
Kreps, David A. 1990. *A course in microeconomic theory.* Princeton: Princeton University Press.

Course outline
- The consumer: budget costraint, preferences, demand, the Slutzky equation, choice over time
- The firm: technology, profit maximization, cost minimization, cost curves and firm supply
- Uncertainty, decision analysis and application to assets: expected utility, risk aversion and diversification, mean-variance utility
- General equilibrium exchange and welfare: first and second welfare theorems and existence, aggregation of preferences, welfare maximization, individual social welfare functions, fairness, envy and equity.

Evaluation
Three-hour written exam based on the required text and the lectures.

Evaluation code(s)
GRA60221

Aids at the examination
Berck, Peter and Knut Sydsæter. 1991. Economists' mathematical manual. Berlin: Springer Verlag.
Berck, Peter and Knut Sydsæter. 1992. Matematisk formelsamling for økonomer. Oslo: Universitetsforlaget.

Makeup exam
At the next regular exam

GRA 6023 Research Methodology

Program
Master of Science (common course)

Responsible for the course
Randi Lunnan

Department
Strategy

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
This course provides an introduction to research methods for the management sciences. It is designed to give you a solid foundation for doing your own research and the ability to be a knowledgeable consumer of others research. Our main objective is to answer the following three questions:
How do we ask good questions?
How do we give good answers?
How do we evaluate the questions and answers given by others?

Prerequisites
None

Compulsory literature
Nachmias,C. and D. Nachmias (1981), Research Methods in the Social Sciences, St Martins Press, London, Chapters 1-3: 27-75
Collection of Articles

Course outline
Major topics that will be covered in the course: Theory construction, scientific methodology, the research process, assessing and evaluating research

Computer-based tools
No particular requirements

Evaluation
Term paper
Participation and class contribution
Group Assignments
Quiz

Evaluation code(s)
GRA60231

Aids at the examination
None

Makeup exam
At the next regular exam.

GRA 6025 Financial Management

Program
Master of Science (common course)

Responsible for the course
Dag Michalsen

Department
Financial Economics

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
The finance discipline has over the last decades matured to the point where there exists a sound body of theory. In this introductory course, the theory of finance will be illustrated and applied to problems in corporate finance.
Learning to cope with routine problems is easy, for instance by developing a list of rules for dealing with such problems. However, full reliance on the list-of-rules approach is insufficient as problems do not fit surely will be encountered. A thorough understanding of financial theory will facilitate transcending the simple rules.

Prerequisites
None

Compulsory literature
Ross, Stephen A., Randolph W. Westerfield and Jeffrey F. Jaffe: Corporate Finance, 5th ed., Irwin/McGraw-Hill, 1999

Course outline
Finance- an Introduction
Accounting Statements and Cash Flows
Value and Capital Budgeting
-Net Present Value
-Valuation of Bonds and Stocks
-Alternative Investments Rules
-Capital Budgeting
Uncertainty
-Capital Market Theory
-Risk and return
-The Capital Asset Pricing Model
-The Arbitrage Pricing Theory
Risk, Return and Capital Budgeting
Capital Structure and Dividend Policy
-Overview of Capital Structure Theories
-Dividend Policy

Course structure
The instruction during the 30 lecture hours consists primarily of presentations and discussions of the readings assigned to the topics listed above. Students are expected to have read the material before each class meeting.

Evaluation
Three-hour written exam

Evaluation code(s)
GRA 60251

Aids at the examination
Interest tables (distributed during the exam) and financial calculators are permitted during the exam.

Makeup exam
At the next ordinary exam

GRA 6026 Organization Science

Program
Master of Science (common course)

Responsible for the course
Agneta Karlsson

Department
Knowledge Management

Term
MSc: Fall

Credits/ ECTS Credits
2/6

Objective
One of the main objectives of this course is to provide the students with a multi-perspective view of organizations. It is almost trivial to state that organizations are complex phenomena. Exploring this complexity is, however, not a trivial endeavor. The understanding of organizational life requires an ability to see organizations from different angles and to accept paradoxes. Research on organizations certainly reflects their complex everyday life. Various research traditions have emerged during the last decades resulting in a vital and dynamic debate on the characteristics of this everyday life. Students in organization science are supposed to master this plurality and to be able to regard the pros and cons of a plurality of research approaches. In this sense, this introductory course in organization science, does not only aim at introducing the students to different theories but also to foster a multi-perspective view on organizational reality. Training the students in flexible thinking and fostering a respectful attitude towards paradoxical explanations are central objectives with practical implications.

A course in organization science cannot, however, ignore the dramatic changes in organizational structures that, today, are observable in the private as well as in the public sectors. Understanding these new organizational forms - why they are emerging and which characteristics they bear - are of central importance for managers acting in these sectors. Therefore, the course also aims at giving the students a deeper understanding of the present "experiments" in organizational structures and processes.

Prerequisites
none

Compulsory literature
Hastings, Colin (1993): The New Organization - Growing the Culture of Organizational Networking. London, McGraw-Hill Book Company.

Morgan, Gareth (1997): Images of Organization. London, Sage Publications.

Course outline
A multi-perspective view of organizations
Organizations as machines, organisms (natural systems), cultures, political systems, iron cages etc.
Paradoxical explanations
Structural changes: From hierarchies to internal networks and virtual organizations
The new focus upon processes

Course structure
The course will be structures as seminars, combining lectures with active dialogues. The technique of "deconstruction" will be introduced and used in an attempt to uncover the deeper layers of academic articles and research contributions. The students will be trained in this technique and are expected to demonstrate their learning in three reports, handed in during the course. One minor case.

Evaluation
Three hour written exam subject to pass in obligatory assignments

Evaluation code(s)
GRA 60261

Aids at the examination
None, at the written exam

Makeup exam
At the next ordinary exam

International Business/Strategy/International Business Strategy

GRA 6412 Interorganizational Relations is mentioned under Marketing(see p. 88)
GRA 6320 International Business: Issues and Theories

Program
Master of Science (International Business Strategy), Regular Specialization Course

Responsible for the course
Gabriel R. G. Benito

Department
Strategy

Term
Fall

Credits/ECTS Credits
2/6

Objective
This course provides an overview of the field of international business, with an emphasis on analysis and theory. It aims to give the students i) an understanding of the problems and challenges involved in conducting international business operations, and ii) an up-to-date overview of central theories and research traditions in international business.

Prerequisites
None

Compulsory literature
Hill, C.W.L. 1999. *International Business: Competing in the Global Marketplace.* 3rd edition. McGraw-Hill.
Packet of readings.

Course outline
The challenges of international business
· National differences in political economy
· National differences in culture
· The global trade and investment environment
· International trade theories
· Foreign direct investment theories
· Theories of the internationalization of firms
· The political economy of foreign trade and investment
· Regional economic integration
· International business strategy
· Competitive analysis and positioning
· The international monetary system and global capital markets
· The organization of international business enterprises
· Modes of entry and expansion
· International business operations
· International marketing and R&D
· International HRM
· International financial management and control

Computer-based tools
None

Course structure
Lectures and class discussion

Evaluation
A three hour written examination.

Evaluation code(s)
GRA 63201

Aids at the examination
None

Makeup exam
At the next ordinary exam

GRA 6321 International Cultural Management

Program
Master of Science (International Business), Regular Specialization Course

Responsible for the course
Felicia Andrews Røkaas

Department
Communication - Culture and Languages

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
The global economy is characterized by cultural diversity. The increasing internationalization of business has made it imperative for future business leaders to be able to respond to cultural diversity and understand the way that cultural differences affect the process of doing business and managing. Internationalization requires the ability to communicate effectively across cultures. The aim of this course is to help prepare students for successful business interactions with culturally different others. The course will give students insight into the role of culture and communication in international business. During the course we will examine our own assumptions and expectations about how people should think and act, and discover that the values and norms that we take for granted are sometimes at odds with the values and norms of others. The theoretical focus of this course is on contemporary theories of intercultural communication in a business context.

Prerequisites
None

Compulsory literature
Trompenaars, Fons and Hampden-Turner, Charles. *Riding the waves of culture: Understanding cultural diversity in business*. 2nd ed. London: Nicholas Brealey. 1997.
Røkaas, Felicia Andrews. 2000. *Intercultural Communication Texts for GRA 6321.* BI collection of articles. 2000.
Hand-outs

Recommended literature
Hofstede, Geert. *Cultures and Organizations: Software of the Mind.* London: McGraw-Hill. 1991.

Course Outline
Culture and communication
Cultural diversity in organizations
Intercultural communication
Theoretical frameworks for understanding cultural differences
Non-verbal communication

Computer-based tools
None

Evaluation
A three-hour written examination (80%)
Student participation and presentation (20%)

Evaluations code(s)
GRA63211

Aids at the examination
None

Makeup exam
At the next regular exam

GRA 6322 Servicing International Markets

Program
Master of Science (International Business Strategy), Regular Specialization Course

Responsible for the course
Carl Arthur Solberg

Department
Marketing

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
The aim of this course is to extend the program in international business with a focus on key issues in the development of international operations over time by companies. Building on the theme of internationalization options for and implications of international operations shall be explored – covering both theoretical and practical perspectives.

Prerequisites
GRA 6320 International Business: Issues and Theories or equivalent courses.

Compulsory literature
Packet of readings

Course outline
Introduction: Internationalization and global developments
Theoretical perspectives on foreign market servicing
Foreign market servicing:
Operation mode choice and packaging issues (including areas such as international franchising, project operations and subcontracting).
Development over time

Course structure
Lectures and class discussions. Assigned readings should be carefully studied prior to each lecture.

Evaluation
Term paper and a one-hour control exam. The term paper, counting 100% of the grade, may be carried out by groups of three students. The control exam is individual - pass/fail. The students have to pass both forms of assessment to obtain a grade.

Evaluation code(s)
GRA 63221 (term paper)
GRA 63222 (control exam) pass/fail

Aids at the examination
None (control exam)

Makeup exam
The next time the course is offered.

GRA 6323 International Negotiations

Program
Master of Science (International Business Strategy), Regular Specialization Course

Responsible for the course
Brian Groth

Department
Communication - Culture and Languages

Term
MSc: Fall and Winter

Credits/ECTS Credits
2/6

Objective
On completion of the course students should be able to function more effectively as negotiators, especially in the international arena.

Prerequisites
None

Compulsory literature
Lewicki, Roy J., David M. Saunders and John W. Minton. 1997. *Essentials of negotiation.* Homewood, Ill.: Irwin.
In addition there will be a limited number of hand-outs distributed during the course.

Course outline
This course seeks to combine the essentials of negotiating theory with the "how-to-do-it" approach of negotiation literature. The emphasis will not be on theory for its own sake, but rather how it helps us understand, analyze and improve practice.
Central to the course are simulated business/commercial negotiations with the students as principals. Coursework will involve defining the issues to be negotiated; preparing for the negotiation; understanding the phases through which a negotiation passes; utilizing varying negotiation strategies and tactics; developing an increased awareness of psychological aspects in negotiation; and acquiring an increased sensitivity to the importance of cross-cultural factors in international negotiations. Each simulated negotiation will highlight a particular type of negotiation. Extensive debriefing both in the negotiating groups and in plenary sessions will follow each negotiation, some of which will be video filmed. Students will also be required to write a term paper relating what they have learnt in the simulated negotiations to negotiation theory as presented in the literature.
From the above description it should be obvious that this is a course requiring maximum student participation. Only those students who can attend every session will be admitted to the course.

Course structure
30 hours of lectures and group work. The course will be taught over seven sessions with the oral exam immediately afterwards. A limited number of students are admitted to the course to permit and encourage maximum activation.

Evaluation
Oral exam of 50 minutes duration where 2 teams of 2 or 3 participants negotiate an allocated case in English. Assessors take no part in the exam but may ask clarification questions at the end. In addition students must write one term paper of about 2000 words. The oral exam and the term paper count 50% each.

Evaluation code(s)
GRA 63231

Makeup exam
By appointment with the instructor

GRA 6324 International Financial Management

Program
Master of Science (International Business), Regular Specialization Course

Responsible for the course
Richard Priestley

Department
Financial Economics

Term
MSc: Winter

Credits /ECTS Credits
2/6

Objective
The purpose of the course is to give an introduction to the management of finance for a firm operating internationally. Constantly changing financial environments expose such firms to new and different types of risk, as well as new instruments to deal with these risks. As a consequence of this, the firm's investment and financing decisions need to be modified. The objective of the course is therefore to study and understand how corporate financial management is affected by, and can take advantage of, international economic environments.

Prerequisites
This course is open to participants who are registered in any specialization except Finance.

Compulsory literature
Eun, Cheol S. and Bruce G. Resnick. 2000. *International financial management.* 2nd ed. Boston: Irwin/McGraw-Hill.

Recommended literature
None

Course outline
An introduction to MNCs
Exchange rate determination
Measuring and managing exposure to the exchange rate
More risk involved with international trade
Direct foreign investment
Multinational capital budgeting
Multinational cost of capital and international investments
International Taxation

Computer-based tools
No used in this course

Course structure
30 lecture-hours during which the main topics (as listed in the course outline) are given extensive and in-depth coverage. Cases will also be used. Assigned readings should be carefully studied prior to each class meeting.

Evaluation
A three hour written examination at the end of the lecture series. The exam covers all topics discussed in class as well as all the assigned readings.

Evaluation code(s)
GRA63241

Aids at the examination
Interest tables (distributed during the exam) and calculators. Computer models are not permitted.

Makeup exam
At the next regular exam

GRA 6327 Management and Control Issues in Multinational Enterprises

Program
Advanced Specialization Course, Master of Science (International Business) Master of Science (Strategy)

Responsible for the course
Gabriel R. G. Benito, Hanno Roberts

Department
Strategy

Term
MSc: Winter

Credits/ ECTS Credits
2/6

Objective
The aim of this course is to familiarize the student with the intricacies of managing, controlling, and evaluating foreign activities. The course takes a broad perspective on these issues, and will draw on insights from organization theory and economics (transaction cost theory and agency theory) as well as from accounting and control literature.

Prerequisites
GRA 6320 International Business: Theories and Issues

Compulsory literature
Selected articles

Course outline
Perspectives on control in organizations
MNCs: Diversity and complexity
Control mechanisms in MNCs
Foreign subsidiaries: Choice of ownership structures and entry modes
Management of international joint ventures
Performance evaluation

Computer-based tools
It is expected that students can be reached through e-mail.

Course structure
Active class participation is expected. In addition to traditional lectures, important topics in the course will be further elucidated through company cases presented by groups of students.

Evaluation
Term paper, which may be carried out individually or by groups of two students, counts for 60% of final grade. Class participation (including presentation of cases) counts for 40% of final grade.

Evaluation code(s)
GRA 63271

Makeup exam
The next time the course is offered.

GRA 6329 Global Business Policy

Program
Master of Science (International Business Strategy), Regular Specialization Course

Responsible for the course
Gabriel R.G. Benito and Rajneesh Narula

Department
Strategy

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
The aim of this course is to provide an introduction to the global strategy literature, and through actual company cases develop students' ability to formulate and analyze business strategies in an increasingly global business environment.

Prerequisites
GRA 6320 International Business: Issues and Theories, or equivalent course.

Compulsory literature
Selected articles and cases that will be handed out in advance of sessions.

Course outline
The sessions will focus on how the process of globalization affects various aspects of business strategy.

Computer-based tools
Students should have an e-mail address.

Course structure
A combination of traditional lectures and case sessions.

Evaluation
Case presentations and an individual term paper, each counting 50% of the final grade.

Evaluation code(s)
GRA 63291

Makeup exam
Next time the course is offered.

GRA 6416 Current Topics in Strategic Management

Program
Advanced Specialization Course, Master of Science (International Business), Master of Science (Strategy)

Responsible for the course
Mark P. Kriger

Department
Strategy

Term
MSc: Spring

Credit/ECTS Credits
2/6

Objective
Strategic Management is a field which includes both inquiry into and knowledge of complex organizational systems as well as how to translate that knowledge into action programs at varying levels of the organization - corporate, business or product unit, and functional areas.
The course will use a combination of leading edge books, articles, and cases to explore: 1) where the field of strategy is heading; 2) what the emerging problems are; and 3) the likely avenues for solution.
The course will tend to take an international or global perspective, but will not be limited to international issues.

Prerequisites
Students are required to already have taken Strategy Analysis or its equivalent and also have taken Strategy Process or concurrently be taking it.

Compulsory literature
To be determined

Course outline
This course draws upon:
Current empirical and theoretical writings in Strategic Management
Practitioner-oriented articles that are well-founded on empirical work.
Works in progress by leading strategy thinkers, researchers, and practitioners
Our aim will be to get out ahead of the wave to anticipate the future directions of Strategic Management

Computer-based tools
None

Evaluation
One comparative evaluation of two current books of strategy (25%)
One final term paper (50%)
Class contribution and participation (25%)

Evaluation code(s)
GRA 64161

Makeup exam
The next time the course is offered.

GRA 6800 Strategic Dynamics

Program
Advanced Specialization Course, Master of Science (International Business), Master of Science (Strategy)

Responsible for the course
Bent Erik Bakken

Department
Strategy

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
The course provides insight into the dynamics of environments and internal resources required to design and carry out strategies. An overview of scenario analysis methods and business dynamics mapping and simulation tools are given, with hands-on exercises enabling students to acquire knowledge of state-of-the art strategic analysis approaches.

Prerequisites
The equivalent of undergraduate mathematics and fundamental macro- and microeconomics.

Compulsory literature
Sterman, John D. 2000. *Business dynamics: Systems thinking and modeling for a complex world.* Boston, MA.: Irwin.
Selected articles

Recommended literature
Selected articles

Course outline
- Strategic opportunities and constraints
- Scenario analysis of the future environment
- Dynamics of the environment
- Strategic resources
- Resource dynamics
- Causal loop diagramming
- System dynamics modeling and analysis
- Scenario planning and change

Computer-based tools
ithink, High Performance Systems, Lyme, NH

Course structure
The course is structured as a combination of lectures, discussions and student presentations of scenario painting, causal loop mapping and computer simulation. It requires substantial amount of preparation and involvement of students inside and outside class-work.

Evaluation
Class contribution
Individual and Group written assignments and class presentations
Final exam

Evaluation code(s)
GRA68001

Aids at the examination
None

Makeup exam
The next time the course is taught

GRA 6801 Strategy Analysis

Program
Master of Science (International Business Strategy), Regular Specialization Course

Responsible for the course
Ragnhild Kvålshaugen and Normann Sheehan

Department
Strategy

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
The course provides an in-depth introduction to business and corporate strategic management. In GRA 6801 the students are exposed to the theoretical foundations of strategy analysis and it should be seen in conjunction with GRA 6805 Applied Strategy Research. These two courses form a rigorous and demanding sequence on strategy content that lays the foundation for further specialization in the field of strategy, including process, evaluation, consulting, and current topics.

Prerequisites
The equivalent of a fundamental micro economics and management undergraduate background.

Compulsory literature
To be announced
Barney, Jay B. 1997. *Gaining and sustaining competitive advantage.* Reading, Mass.: Addison-Wesley, 1997
Ghemawat, P.: *Strategy and the Business Lanscape.* Reading, Mass.: Addison Wesley, 1999

Recommended literature
Porter, Michael. 1998. *Competitive strategy: Techniques for Analyzing Industries and Competitors.* New York: Free Press 1980. (or most recent edition from 1998)
Porter, Michael: *Competitive Advantage: Creating and Sustaining Superior Performance.* New York. :Free Press 1985 (or most resent edition from 1998)
Penrose, Edith. 1995. *The Theory of the growth of the firm.* 3rd ed. Oxford : Oxford University Press 1995.

Course outline
- Introduction
- What is strategy?
- Industrial organization, industry characteristics and performance
- Resource analysis
- Activity Analysis
- Corporate Strategy
- Cooperative strategies
- Strategy, structure, innovation and change
- E-Commerce strategy

Course will include case presentations and discussions.

Course structure
The course is structured as a combination of lectures, discussions, in-class activities, and student presentations about strategy analysis. It requires substantial amount of preparation by the students and active involvement during class.

Evaluation
To be announced, but will be based on:
Class contribution
Individual written assignments and/or term paper
Group case analysis
Final exam

Evaluation code(s)
GRA 68011

Aids at the examination
None

Makeup exam
The next time the course is offered.

GRA 6802 Strategy Evaluation

Program
Master of Science (International Business), Master of Science (Strategy), Regular Specialization Course

Responsible for the course
Fred Wenstøp, Gay Bjercke

Department
Strategy

Term
Fall

Credits/ ECTS Credits
2/6

Objective
To develop the students' conceptual understanding of value focused thinking as a basis for multi-criteria evaluation of firm performance, and to make them able to develop balanced scorecards in practice

Prerequisites
None

Compulsory literature
Keeney, Ralp L. 1992. *Value-focused thinking: A path to creative decisionmaking.* Cambridge, MA: Harvard University Press.
Olve, Nils-Göran, Jan Roy Wetter and Magnus Wetter:1999. *Performance drivers: A practical guide to using the balanced scorecard.* Chichester: Wiley.
Otley, David. 1999. "Performance management: A framework for management control systems research." *Management accounting research.* 10 (4): 363-382.

Course outline
1. Framework for Value-focused Thinking
2. Identifying, Structuring, Quantifying and Measuring Objectives
3. Strategic Evaluation Criteria
4. Conceptual Understanding of the Balanced Scorecard
5. The Four Dimensions of the Balanced Scorecard
6. Applications of the Balanced Scorecard
7. Performance Management and Research
8-10. Student presentations of own work in developing a balanced scorecard, with discussion

Course structure
Seven lectures a 3 hours, three seminars with student presentations and discussion

Evaluation
Class participation 30%, Case paper by groups of up to three students 30%, Final written exam 40%

Evaluation code(s)
GRA6802.01

Makeup exam
At the next regular exam

GRA 6804 Management of Strategy Process

Program
Master of Science (International Business Strategy), Regular Specialization Course

Responsible for the course
Lars Huemer, Bjarne Kiil

Department
Strategy

Term
MSc: Spring

Credit/ECTS Credits
2/6

Objective
The course develops the student's understanding and perspectives of different strategic processes and how they can be managed. The essence of strategic thinking, how strategies come to be, and how strategies can be changed are of central concerns.

Prerequisites
Strategy Analysis

Compulsory literature
Wit, Bob de and Ron Meyer: 1998. *Strategy: Process, content, context.* 2nd ed. London: International Thomson Business Press.

Articles and cases to be specified in class.

Course outline
This course builds on the theoretical foundations of the strategy analysis course. In general, the course covers different perspectives on various types of strategic processes. Specifically, the course includes the following interrelated topics:

- Visionary leadership, organizational purpose and strategic intent
- The process of developing and mobilizing strategic resources
- The process of learning
- The process of strategic co-operation
- Strategic change and transformation
- Strategy implementation

Computer-based tools
None

Course structure
The course is structured as a combination of discussions, in-class activities, lectures and student presentations about strategy processes. It requires a substantial amount of preparation by the students and active involvement during class.

Evaluation
Class contribution
Individual written assignments
Group assignments

Evaluation code(s)
GRA 68041

Aids at the examination
All

Makeup exam
The next time the course is offered.

NOTE!
Students who have not completed the required course are not admitted. Exceptions may be made by instructor, provided the student can document equivalent course background and/or practice in applied strategy analysis work.

GRA 6805 Applied Strategy Research

Program
Master of Science (International Business Strategy), Regular Specialization Course

Responsible for the course
Charles Stabell

Department
Strategy

Term
MSc: Winter

Credit/ECTS Credits
2/6

Objective
The participants should develop state-of-the art approaches to applied strategy research. The course provides an in-depth introduction to business and corporate strategic management from an applied perspective. This course constitutes the empirical side of the theoretical concepts and tools discussed in GRA 6801 Strategy Analysis. The main goal is to expose students to the empirical research in strategy and its applications into business management, relying heavily on case discussions. As an advanced course, it is structured to encourage the active participation of students in the discussions of empirical research and cases in strategic management.

Prerequisites
Fundamental microeconomics, as well as a course in research methodology. This course builds directly on GRA 6801 - Strategy Analysis.

Compulsory literature
Selected articles

Recommended literature
Barney, Jay B. 1997. *Gaining and sustaining competitive advantage*. Reading, Mass.: Addison-Wesley.
Porter, Michael E. 1980. *Competitive strategy: Techniques for analyzing industries and competitors*. New York: Free Press.

Course outline
- Introduction: Doing applied research in strategy
- The strategy research industry
- Industry analysis
- Value configuration analysis
- Strategic cognition
- Competitive dynamics
- System dynamics

Computer-based tools
None

Evaluation
Class contribution
Case analysis
Term paper

Evaluation code(s)
GRA 68051

Makeup exam
The next time the course is offered.

GRA 6806 Comparative Business Systems

Program
Advanced Specialization Course, Master of Science (International Business), Master of Science (Strategy)

Responsible for the course
Lars Thue

Department
Innovation and Economic Organization

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
Primarily developing the student's ability to analyze differences and similarities between economic systems to serve as a platform for formulating and executing global strategies.

Prerequisites
Basic micro- and macro economics, management.

Compulsory literature
- Whitley, Richard. 1999. *Divergent capitalism's: The social structuring and changes of business systems.* Oxford: Oxford University Press.
- McCraw, Thomas K. ed. 1997. *Creating modern capitalism; how entrepreneurs, companies, and countries triumphed in three industrial revolutions.* Cambridge, Mass.: Harvard University Press.
- Selected Articles

Recommended literature
None.

Course outline
This course provides a comparative study of the relationship between firms and markets on three levels: the macro level that includes the issue of governance regimes and societal institutions, the meso level that includes industrial sectors and different industries, and the micro or firm level that includes issues such as management style and work organization. The underlying analytical framework is the business system concept and the perspective is both historical and international, where the business systems of UK, US, Japan and Germany - but also the transformation economies of Eastern Europe - will be among the main cases.

Evaluation
Written five hour individual exam (counts 60%) and class participation (counts 40%).

Evaluation code(s)
GRA 68061

Aids at the examination
No permitted aids.

Makeup exam
At the next regular exam

GRA 6808 Strategy Consulting Clinic

Program
Advanced Specialization Course, Master of Science (Strategy)

Responsible for the course
Bente Løwendahl

Department
Strategy

Term
MSc: Spring

Credit/ECTS Credits
2/6

Objective
The focus of the course is on developing an understanding of and practical skills in doing strategic analysis. The course will be closely tied to practice by cooperation with leading professionals, and will provide insight into both the application of analytical tools, how different tools are applied by different consulting firms, and the consulting industry as such.

Prerequisites
Strategy Analysis, Applied Strategy Research and Management of Strategy Process.
NOTE! Students who have not completed all three required courses, with particular emphasis on Applied Strategy Analysis, are not admitted. Exceptions may be made by instructor, provided the student can document equivalent course background and/or practice in applied strategy analysis work.

Compulsory literature
Løwendahl, Bente R. 2000. 2.ed. *Strategic management of professional service firms.* Copenhagen: Copenhagen Business School.
Handouts.

Recommended literature
Kubr, Milan. 1996. *Management consulting: A guide to the profession.* 3rd (rev.) ed. Geneva: International Labour Office.

Course outline
Performing and managing consulting engagements
The role of analysis and process tools and methods in client engagements
Client relationship management
Managing a strategy consulting practice

Computer-based tools
No particular requirements.

Course structure
Lectures and case preparations, including numerous visiting senior lecturers from well known consulting companies.

Evaluation
Class contribution - 25%
Group assignments - 25%
Term Paper (1-3 students) 50%

Evaluation code(s)
GRA 68081

Aids at the examination
All

Makeup exam
The next time the course is offered. No partial makeup possible, hence makeup requires a retake of the entire course.

GRA 6810 Strategic Alliances

Program
Master of Science (International Business Strategy), Regular Specialization Course

Responsible for the course
Randi Lunnan

Department
Strategy

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
The purpose of this course is to give an insight into the complex and exciting field of alliances

Prerequisites
Basic strategy theory and research methodology

Compulsory literature
Articles: A reading list will be provided on the first day of class.

Course outline
Major topics that will be covered in class: Corporate strategy, Contracts and relationships, Stages and Development processes, Leadership and Organization issues, International alliances, networks, merger and acquisitions

Course structure
Classes will be a mix of lectures, presentations and class discussions

Evaluation
80% Term Paper
20% One hour written exam

Evaluation code(s)
GRA 68101

Aids at the examination
None

Makeup exam
At the next ordinary exam

Financial Economics

GRA 6501 Asset Pricing

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Richard Priestley

Department
Financial Economics

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
This course offers an in-depth overview of asset pricing, thereby providing a bridge to the more theoretical articles in finance that use asset pricing models. Furthermore the course will give particular attention to testable propositions and to the literature that has developed empirical tests of important elements of theory.

Prerequisites
Basic corporate finance at the level of e.g. Brealey & Myers, or Ross, Westerfield & Jaffe.

Compulsory literature
Copeland, Thomas E. and J .Fred Weston. 1988. *Financial theory and corporate policy.* 3rd ed. Reading, MA. : Addison- Wesley.

Recommended literature
Cuthbertson, Keith. 1996. *Quantitative financial economics: Stocks, bonds and foreign exchange.* Chichester: Wiley .
Grinblatt, Mark and Sheridan Titman. 1998. *Financial markets and corporate strategy.* Boston, MA. : Irwin/McGraw-Hill.
Articles.
A reading list will be provided on the first day of class.

Course outline
- Utility theory given uncertainty
- State preference theory
- The Capital Asset Pricing Model
- The Arbitrage Pricing Theory
- The Consumption CAPM
- Derivative Pricing
- Bond Pricing
- Efficient capital markets: Theory and evidence

Computer-based tools
Not applicable for this course.

Course structure
The instruction during the 30 lecture hours is comprised of 10 lectures.

Evaluation
A three hour written examination at the end of the lecture series. The exam relates to topics discussed in class as well as assigned readings throughout the course.

Evaluation code(s)
GRA 65011

Aids at the examination
Interest tables (distributed during the exam) and calculators (with memories emptied) are permitted during the exam.

Makeup exam
At the next ordinary exam.

GRA 6502 Corporate Finance

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Kristian Rydqvist

Department
Financial Economics

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
The course studies the firm's financing decisions when corporate insiders have information, which the outside market does not have. The irrelevance theorems of perfect markets hold no longer. The limits to debt financing and the limits to equity financing are defined to set an optimal interior capital structure, dividend policy, and ownership structure.

Prerequisites
SIV 2300 Finans, or an equivalent course.

Compulsory literature
Grinblatt, Mark and Sheridan Titman. 1998. *Financial markets and corporate strategy*. Boston, MA.: Irwin/McGraw-Hill.
Handouts.

Course outline
- Capital structure and taxes
- Dividends and taxes
- Limited liability options
- Agency costs of debt
- Agency costs of equity
- Decision to go public
- Adverse selection
- Flotation costs

Course structure
The instruction during the 30 lecture hours consists primarily of presentations and discussions of the readings assigned to the topics listed above. Students are expected to have read the material before each class meeting.

Evaluation
Eighty per cent is based on a three hour written examination at the end of the lecture series.
The exam relates to topics discussed in class as well as assigned readings throughout the course. The remaining twenty per cent are based on classroom activity.

Evaluation code(s)
GRA 6502.01

Aids at the examination
Calculators are permitted during the exam.

Makeup exam
At the next ordinary exam.

GRA 6506 Investments

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Dag Michalsen

Department
Financial Economics

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
This course aims at providing the student with an understanding of the investment environment and process. The investment environment includes the kinds of marketable securities that exist and where and how they are bought and sold. The investment process is concerned with decision-making, how much to invest in each security and when to make these investments.

Prerequisites
GRA6501 Asset Pricing, or an equivalent course.

Compulsory literature
Haugen, Robert A. 2000. *Modern investment theory*. 5th ed. Upper Saddle River, N.J.: Prentice-Hall.
Articles.
A reading list will be provided on the first day of class.

Course outline
- Securities and markets
- Portfolio management
- Risk, expected return, and performance measurement
- Interest rates and bond management
- The pricing of complex securities
- Issues in investment management

Computer-based tools
Students are encouraged to use computer models in this course.

Course structure
The instruction over 30 lecture hours consists primarily of presentations and discussions of the readings assigned to the topics listed above. Students are expected to have read the material before each class meeting.

Evaluation
A term paper and/or class participation (40%) and a three hour written examination (60%) at the end of the lecture series.
The exam relates to topics discussed in class as well as assigned readings throughout the course.

Evaluation code(s)
GRA 6506.01

Aids at the examination
Interest tables (distributed during the exam) and calculators are permitted during the exam.

Makeup exam
At the next ordinary exam.

GRA 6507 Financial Risk Management

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Bernt Arne Ødegaard

Department
Financial Economics

Term
MSc: Winter

Credits/ ECTS Credits
2/6

Objective
The purpose of this course is to give an understanding of the tools for and motivations behind using financial tools for managing risk. The course will give an overview of available tools for risk management, as well as some insights into the corporate hedging decision.

Prerequisites
GRA6501 Asset Pricing, or an equivalent course.

Compulsory literature
A complete readings list will be provided on the first day of class.

Course outline
- Overview of tools for risk management
- Identification and measurement of relevant "macro" risk
- Corporate hedging and the coordination of real and financial decisions

Course structure
30 lecture-hours

Evaluation
The evaluation will be partly (20%) based on a set of homework problems. The remainder is based on a three-hour written exam at the end of the lecture series.

Evaluation code(s)
GRA6507.01

Aids at the examination
Interest tables (distributed during the exam) and calculators are permitted during the exam.

Makeup exam
At the next ordinary exam.

GRA 6508 Multinational Financial Management

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Richard Priestley

Department
Financial Economics

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
Firms with an international involvement are faced with a multiple of potentially important macroeconomic decision variables. Compared to a domestic firm, the acquisition and allocation of resources in an international firm is more complex, and yet, at the same time, offers opportunities not present in a national market. Our objective is to study and understand how corporate financial management is affected by, and can take advantage of, international economic environments.

Prerequisites
Course participants are required to have taken basic corporate finance at the level of e.g. Brealey & Myers, or Ross, Westerfield & Jaffe, as well as GRA6501 Asset Pricing or an equivalent course (can be taken in parallel in the fall term).

Compulsory literature
Sercu, Piet and Raman Uppal. 1995. *International financial markets and the firm.* Cincinnati, Ohio: South-Western College Publishing.
Articles
A reading list will be provided on the first day of class.

Course outline
Foreign exchange markets
Exchange rate determination
The relevance of hedging
Measuring and managing foreign exchange exposure
Managing other risks in international trade
International capital budgeting
Exchange risk and capital market segmentation
Taxation and the MNC
Valuation and negotiation of joint ventures

Computer-based tools
Not applicable

Course structure
30 lecture-hours during which the main topics (as listed in the course outline) are given extensive and in-depth coverage. Assigned readings should be carefully studied prior to each class meeting.

Evaluation
A three hour written examination at the end of the lecture series. The exam covers all topics discussed in class as well as all the assigned readings.

Evaluation code(s)
GRA 65081

Aids at the examination
Interest rate tables (distributed during the exam) and calculators are permitted during the exam.

GRA 6510 Empirical Methods in Finance

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Bernt Arne Ødegaard

Department
Financial Economics

Term
MSc: Fall

Credits/ ECTS Credits
2/6

Objective
This course is an introductory course in Econometrics at the graduate level. The course will introduce the basic concepts of econometric theory, moving from the classical linear least squares theory to the modern emphasis on nonlinear relationships in either a maximum likelihood (ML) or generalized method (GMM) of moments setting. Part of the motivation behind the course is to expose the student to the tools, terminology and theory used in more advanced empirical methodology courses. The course differs from a standard "regression" course in several ways. First, essential tools from matrix algebra will be learned early on. Second, some attempt will be made to acquaint the student with the statistical and probability theory that underlies the techniques used. Third, many of the empirical examples developed in class will come from the finance literature.

Prerequisites
Students are required to have already taken an econometrics course at the level of Gujarati's Basic Econometrics.

Compulsory literature
Greene, William H. 2000. *Econometric analysis*. 4th ed. Englewood Cliffs, N.J.: Prentice-Hall.
A course packet containing additional notes will be made available at the beginning of the course.

Course outline
- Introduction to Matrix Algebra
- Review of Basic Probability
- Review of OLS
- The GLS Estimator
- Maximum Likelihood Estimation
- Generalized Instrumental Variables Estimation
- Topics in Econometrics

Course structure
The course will consist mainly of lectures, homework problems and some PC computer work. Students are strongly encouraged to keep up with both required and supplemental readings and homework. Students will be required to use statistical computer tools.

Evaluation
The grade will be based partly (25%) on a set of problem sets. The remainder (75%) will be based on a three hour written examination at the end of the lecture series.

Evaluation code(s)
GRA65101

Aids at the examination
Calculator
Berck, Peter and Knut Sydsæter: 1991. Economists' mathematical manual. Berlin: Springer Verlag.
Berck, Peter og Knut Sydsæter: 1992. Matematisk formelsamling for økonomer. Oslo: Universitetsforlaget.

Makeup exam
At the next ordinary exam

GRA 6520 Financial Derivatives

Program
Advanced Specialization Course, Master of Science (Financial Economics)

Responsible for the course
Bernt Arne Ødegaard

Department
Financial Economics

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
This course will be about the pricing and use of derivative securities. Essentially, a derivative security is one where the payoff of one security depends on the payoff from some other security. The best known examples of derivatives are put and call options. This course is primarily devoted to theoretical understanding of the pricing and use of derivative instruments. Institutional detail will not be emphasized.

Prerequisites
GRA6501 Asset Pricing or equivalent course

Compulsory literature
Hull, John C. 2000. *Options, futures and other derivatives*. 4th ed. Prentice Hall.
A readings package containing some additional readings will be available at the beginning of the course.

Course outline
- Options markets.
- Properties of option prices.
- Price processes of underlying.
- The Black Scholes analysis.
- Numerical procedures for pricing derivatives.
- Interest rate derivatives.

Course structure
The course will consist of lectures (30 lecture hours), problem solving and some computer work.

Evaluation
The evaluation will be based on a final exam (60% of the grade) and class participation (40%)

Evaluation code(s)
GRA 65201

Aids at the examination
Berck, Peter and Knut Sydsæter: 1991. Economists' Mathematical Manual. Berlin: Springer Verlag.
Berck, Peter og Knut Sydsæter. 1992. Matematisk formelsamling for økonomer. Oslo: Universitetsforlaget.
Interest tables (distributed during the exam) and calculators are permitted during the exam.

Makeup exam
At the next ordinary exam

GRA 6521 Corporate Governance and Control

Program
Advanced Specialization Course, Master of Science (Financial Economics)

Responsible for the course
Kristian Rydqvist

Department
Financial Economics

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
This corporate finance course deals with how investors can ensure that a firm meets its contractual obligations. We deal with the efficiency of the legal system, the implications of contracts that cannot be enforced in court, and the use of capital structure and incentive schemes to reduce the manager's incentives to expropriate funds from investors.

Prerequisites
SIV 2300 Finance and GRA 6502 Corporate Finance, or corresponding courses.

Compulsory literature
Grinblatt, Mark and Sheridan Titman. 1998. Financial markets and corporate strategy. Boston, MA.: Irwin/McGraw-Hill. Chapters 17, 18, and 19.

Course outline
- Corporate law.
- Shareholder meeting.
- Board of directors.
- Takeovers.

Computer-based tools
None

Course structure
Presentations and discussions of the reading material. Students are expected to participate actively and to be well-prepared before class. Students will also be asked to write and present in class a term paper in groups of two on a topic related to Norwegian corporate law and governance structure.

Evaluation
Forty per cent of the grade is based on class participation, forty per cent on solutions to problem sets, and twenty per cent on term paper and presentation.

Evaluation code(s)
GRA 65211

Makeup exam
Next time the course is offered.

GRA 6522 Fixed Income Securities

Program
Advanced Specialization Course, Master of Science (Financial Economics)

Responsible for the course
Kristian Rydqvist

Department
Financial Economics

Term
MSc: Winter

Credits /ECTS Credits
2/6

Objective
The course has two parts. The first part studies institutional features of bond markets including Treasury debt, agency and corporate debt, tax-exempt debt, and lottery bonds. We analyze auction design, default risk, tax arbitrage, and lottery risk. The second part introduces students to bond valuation under interest rate uncertainty.

Prerequisites
GRA6501 Asset Pricing and GRA6506 Investment Theory, or corresponding courses.

Compulsory literature
Sundaresan, Suresh. 1997. *Fixed income markets and their derivatives.* Cincinnati, Ohio: South-Western College Publishing.

Course outline
- Treasury auctions.
- Default risk.
- Tax arbitrage.
- Lottery risk.
- Bond valuation under interest rate uncertainty.

Computer-based tools
Excel, statistical packages.

Course structure
Lectures and computer based problems.

Evaluation
Forty per cent of the grade is based on class participation. Sixty per cent is based on solutions to the practice problems.

Evaluation code(s)
GRA65221

Makeup exam
At the next regular exam

GRA 6523 International Financial Markets and Investments

Program
Advanced Specialization Course, Master of Science (Financial Economics)

Responsible for the course
Pål E. Korsvold

Department
Financial Economics

Term
MSc: Winter

Credits /ECTS Credits
2/6

Objective
The course examines the international financial markets that multinational firms, banks and governments use in conducting their business. These markets include the market for foreign exchange, the Eurocurrency market and related money markets, the Eurobond and global equity markets, commodity markets, and markets for special financial instruments such as forwards, futures, options and swaps. The objective of the course is to familiarize the student with these markets, how financial instruments are traded and priced, and how commercial companies may use the markets for risk management and financing.

Prerequisites
GRA6501 Asset Pricing and GRA6502 Corporate Finance, or equivalent course(s) from other institutions.

Compulsory literature
Levich, Richard M. 1998. *International financial markets: prices and policies.* Boston, MA.: McGraw-Hill.
Articles (a list will be distributed on the first day of classes).

Recommended literature
None

Course outline
1. The international financial setting (Giddy 1-4):
· Foreign exchange markets
· Exchange rate systems
2. Foreign exchange pricing and prediction (Giddy 5-6):
· Parity conditions
· Forecasting
3. Instruments: forwards, futures, options (Giddy 7-8)
4. International capital markets:
· Bond markets (Giddy 12)
· Swaps (Giddy 13)
· Equity markets (Giddy 14)
· Commodity markets (Giddy 15)

Computer-based tools
None

Course structure
30 lecture hours during which the main topics, as listed in the above outline, will be given extensive coverage. Assigned readings should be studied prior to each class meeting.

Evaluation
A three-hour written examination at the end of the term. The exam may cover all topics discussed in class as well as the assigned readings.

Evaluation code(s)
GRA65231

Aids at the examination
Interest tables (distributed during the exam) and calculators (with memories emptied) are permitted during the exam.

Makeup exam
At the next ordinary exam

GRA 6524 Applied Corporate Valuation

Program
Advanced Specialization Course, Master of Science (Financial Economics)

Responsible for the course
Øyvind Bøhren

Department
Financial Economics

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
The overall goal of this course is to improve the student's ability to carry out real-world valuations of a firm and of its component securities. The practical applicability of the classic valuation models will be explored, including the potential for generating a firm's free cash flow from financial statements, and for quantifying competitive advantage and corporate governance costs. Particular emphasis is put on the valuation of long-lived non-financial assets, such as production plants, petroleum fields, and start-up biotech firms.

Prerequisites
GRA 6501 Asset Pricing, GRA 6502 Corporate Finance, and GRA 6521 Corporate Governance and Control, or corresponding courses.

Compulsory literature
Benninga, Simon and Oded H. Sarig. 1997. *Corporate finance: A valuation approach.* New York : McGraw-Hill.
Articles from a list of readings which will be distributed on the first day of class.
Cases

Recommended literature
Copeland, Thomas E., Tim Koller and Jack Murrin. 1994. *Valuation: Measuring and managing the value of companies.* 2nd ed. New York: Wiley.
Damodaran, Aswath. 1996. *Investment valuation: Tools and techniques for determining the value of any asset.* New York: Wiley.

Course outline
1. Brief review and extension of building blocks from other finance courses
2. Constructing pro-forma financial statements
3. Exploring the firm's past performance and future competitive environment
4. The cost of capital under modern capital structure theories
5. Estimating residual (continuing) value
6. The multiplier approach to valuation
7. Valuing equity, debt and executive stock options
8. Ex-post analysis and economic value added (EVA)
9. Guest lecture by financial analyst

We will not necessarily cover all these topics during the lectures. Most sessions will be a combination of a case discussion and a regular lecture.

Computer-based tools
Extensive use of Excel spread sheets

Course structure
A positive learning experience from this course is heavily dependent on serious homework activities and active involvement in class discussions by all participants. There will be at least 5-8 cases to be solved throughout the course. Students must be familiar with the basics of spreadsheets, preferably Excel.

Evaluation
Two hand ins each counts 30% of the grade, whereas the contribution to class discussion counts 40% of the course grade. There is no final exam. Students may be asked to do a peer review of their fellow group members' individual contribution to joint course work

Evaluation code(s)
GRA 6524.01

Makeup exam
If this course is failed, one will have to retake the entire course.

GRA 6601 Economics of Information

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Julian Manning

Department
Economics

Term
MSc: Winter

Credits/ ECTS Credits
2/6

Objective
This course:
1. Provides an introduction to central issues within modern information economics and
2. Shows how this theory may be applied to improve our understanding of the performance of markets such as the credit, insurance, financial and labor markets.

Prerequisites
Intermediate microeconomics

Compulsory literature
Rasmusen, Eric. 1994. *Games and information: An Introduction to game theory.* 2nd ed. Oxford: Blackwell.

Recommended literature
Gibbons, Robert. 1992. *Game theory for applied economists.* Princeton, N. J.: Princeton University Press.

Course outline
(Subject to revision)
- Game theory.
- Hidden action - moral hazard.
- Hidden knowledge - adverse selection.
- Signaling.
- Incentive contracts.
- Markets with asymmetric information.

Evaluation
Three-hour written exam based on the required text and the lectures.

Evaluation code(s)
GRA 6601.01

Aids at the examination
Berck, Peter and Knut Sydsæter:1991. Economists' mathematical manual. Berlin: Springer Verlag.
Berck, Peter og Knut Sydsæter. 1992. Matematisk formelsamling for økonomer. Oslo: Universitetsforlaget.

Makeup exam
At the next regular exam

GRA 6602 Open Economy Macroeconomics

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Erling Steigum

Department
Economics

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
In today's globalized economy, international aspects of economic growth, business cycles, and monetary and fiscal policy have become increasingly important. In the first part of the course, crucial determinants of long-run economic growth will be discussed in the light of the international empirical evidence. Examples of topics are increased productivity growth due to "the new economy", population aging and life-cycle saving, as well as consumption smoothing and international risk sharing through capital movements (e.g. through the Norwegian state petroleum fund). The second part of the course deals with macroeconomic instability, exchange rates, competitiveness and macroeconomic policy in a world of high international capital mobility. Particular attention will be given to topics such as speculative attacks, financial crises and inflation targeting.

Prerequisites
Intermediate micro- and macroeconomics or equivalent. Proficiency in calculus and basic algebra. Instructor may grant exemptions where appropriate.

Compulsory literature
Burda, Michael and Charles Wyplosz. 1997. *Macroeconomics: A European text.* 2nd ed. Oxford: Oxford University Press.
Jones, Charles I. 1998. *Introduction to economic growth.* New York: W.W. Norton.
Articles

Recommended literature
Krugman, Paul. 1999. *The return of depression economics.* London: Penguin.
Kindleberger, Charles P.1996. *Manias, panics and crashes: A history of financial crises.* 3rd ed. New York: John Wiley.

Course outline
Balance of payments and inter temporal budget constraints
Growth accounting and Solow's growth model: Growth miracles and disasters
Population aging, life-cycle saving and the effects of fiscal policy on intergenerational distribution
The Petroleum fund, consumption smoothing and international risk sharing
Business cycles and economic depressions
Exchange rates, competitiveness and macroeconomic policy
Inflation targeting
Speculative attacks and financial crises.

Computer-based tools
Not compulsory in this course

Evaluation
A three-hour written exam based on lectures and required readings.

Evaluation code(s)
GRA 6602.01

Aids at the examination
Bereck, Peter and Knut Sydsæter. 1991. Economists' mathematical manual. Berlin: Springer Verlag.

Makeup exam
Next ordinary exam

GRA 6603 Industrial Organization

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Julian Manning

Department
Economics

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
This course is designed to provide specific insights into the way that industry is actually organized. For example, the course provides an understanding of how markets work when competition among the market participants is imperfect and what happens when firms can differentiate their products. Various models of such markets are analyzed by using tools from non-cooperative game theory. The course has a business orientation. For example the course is relevant for those who wish to pursue Strategy, Marketing or Finance (for example Market Microstructure).

Prerequisites
Basics understanding of calculus, non-cooperative game theory, and intermediate microeconomics.

Compulsory literature
Shy, Oz. 1996. *Industrial organization: Theory and applications.* Cambridge. MA.: MIT Press.

Recommended literature
Carlton, Dennis W. and Jeffrey M. Perloff. 1994. *Modern industrial organization.* New York: HarperCollins.
Tirole, Jean. 1988. *The theory of industrial organization.* Cambridge, MA.: MIT Press.

Course outline
- Price and quantity competition.
- Dynamic competition and collusion.
- Product differentiation.
- Entry: accommodation vs. deterrence.

Evaluation
A three-hour written exam based primarily on lectures and required literature.

Evaluation code(s)
GRA6603.01

Aids at the examination
Berck, Peter and Knut Sydsæter. 1991. Economists' mathematical manual. Berlin: Springer Verlag.
Berck, Peter og Knut Sydsæter. 1992. Matematisk formelsamling for økonomer. Oslo: Universitetsforlaget.

Makeup exam
At the next regular exam

GRA 6604 Applied Macroeconomics

Program
Master of Science (Financial Economics)

Responsible for the course
Jan F. Qvigstad

Department
Economics

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
Emphasis will be placed on the application of macroeconomic tools studied earlier in the business administration courses (SIV 3001 and SIV 3201) to various problems. The aim is also to link elements of macroeconomics to concepts studied in finance courses, such as duration and portfolio choices. The focus will be on financial markets and, in particular, capital markets and the foreign exchange market. The course in applied macro is coordinated with these courses

- GRA 1302 Macroeconomics for open economies (winter)
- GRA 1333 Money and foreign exchange (spring)

But the courses may also be taken separately.
The courses GRA 1330, GRA 1302 and GRA 1333, combined with the courses in finance GRA 1101, GRA 1132 and GRA 1133, make up the subjects required to acquire specialization in financial markets ("macro-finance")

Prerequisites
Intermediate macroeconomics or equivalent. Instructor may grant exemptions where appropriate.

Compulsory literature
Burda, Michael and Charles Wyplosz. 1997. *Macroeconomics: A European text.* 2nd ed. Oxford: Oxford University Press.
Isachsen, Arne Jon and Ole Bjørn Røste, eds. 1999. *Euroen og den norske krones skjebne.* Bergen: Fagbokforlaget. (En artikkelsamling. The Euro and the Norwegian krone's fate. Articles)

Course outline
Norwegian money and foreign exchange market
Monetary policy with a fixed and floating exchange rate
What is the extent of capital mobility?
Norwegian monetary policy – historical experience
Inflation targeting
Key data sources and analyses for Norwegian monetary policy
Monetary policy framework in the Euro area
US monetary policy and macroeconomic issues
International organizations – responsibilities and functions

Course structure
30 hours of lectures, student presentations of assignments and class discussion. The subjects chosen and focused on will depend on the students' and the lecturer's interests and the relevant economic situation.

Evaluation
A three hours written exam

Evaluation code(s)
GRA 6604.01

Aids at the examination
None

Makeup exam
At the next ordinary exam

GRA 6607 International Money

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Arne Jon Isachsen

Department
Economics

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
To give an overview of the workings of the markets for foreign exchange. Discuss various models of exchange rate determination. Evaluate empirical studies and analyze to what extent models have been able to trace changes in exchange rates.

Prerequisites
Intermediate macroeconomics or equivalent. Good understanding of linear algebra, calculus, and statistics.

Compulsory literature
Grauwe, Paul De, 1996. *International money: Postwar trends and theories.* 2nd ed. Oxford: Oxford University Press, or later edition. Isachsen, Arne Jon. 1992. *Fluctuating exchange rates and economic fundamentals.* Norwegian School of Management Working Paper no. 7. Sandvika: Norwegian School of Management BI. A compendium will be produced each year for this course.

Course outline
- Money and monetary systems
- Bretton Woods system 1945-1971
- The volatility of real exchange rates
- The Dornbusch model for determining the exchange rate
- The portfolio balance model
- The dynamics of exchange rate changes
- Near-rational models
- Economic policy and the market for foreign exchange
- EMU; economic and political considerations

Evaluation
A three hour written exam based primarily on lectures and required readings.

Evaluation code(s)
GRA6607.01

Aids at the examination
Berck, Peter and Knut Sydsæter: 1991. Economists' mathematical manual. Berlin: Springer Verlag.

Makeup exam
At the next regular exam

GRA 6611 Economics of Banking

Program
Master of Science (Financial Economics), Regular Specialization Course

Responsible for the course
Bent Vale

Department
Economics

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
The course provides an overview of recent theories explaining the role of financial institutions, in particular banks, in a modern economy. Theories on asymmetric information will have a major part in the course. Why do customer relations seem to be important in credit markets? How can we explain market imperfections in the credit markets, and what do these imperfections imply for standard welfare theory and macroeconomics? Are credit markets characterized by market power or are they competitive, what is socially preferable? In addition the course will look at some explanations of banking crises, and what role the deposit insurance should play. One of the lectures will be dedicated to discussing some recent events or current topics in the banking industry.

Prerequisites
Intermediate microeconomics or equivalent. Good understanding of calculus and basic statistics.

Compulsory literature
The reading list consists of the following journal articles:
Stiglitz, Joseph E. and Andrew Weiss. 1981. "Credit rationing in markets with imperfect information." *American Economic Review,* 71 (3): 293-410.
Williamson, Stephen D. 1987. "Costly monitoring, loan contracts and equilibrium credit rationing." *Quarterly Journal of Economics,* 102 (1): 135-145.
Sharpe, Steven A. 1990. "Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships." *Journal of Finance*, 45 (4): 1069-1087.
Diamond, Douglas. W. 1996. "Financial intermediation as delegated monitoring: A simple example." *Federal Reserve Bank of Richmond Economic Quarterly*, 82 (3): 51-66.
Diamond, Douglas W. and Philip H. Dypvig. 1983. "Bank runs, deposit insurance and liquidity." *Journal of Political Economy*, 91(3): 401-419.
Merton, R.C. 1977. "An analytic derivation of the cost of deposit insurance and loan guarantees: An application of modern option pricing theory." *Journal of Banking and Finance,* 1: 3-11.
Keeley, M.C. 1990. "Deposit insurance, risk and market power in banking." *American Economic Review,* 80 (5): 1183-1200.
Bernanke, Ben and Alan Blinder. 1988. "Credit, money and aggregate demand." *American Economic Review* , 78 (2): 435-439.

This list is subject to minor adjustments. An updated reading list will be distributed at the first lecture.

Recommended literature

Haubrich, J.G. 1989. "Financial inter mediation, delegated monitoring and long-term relationships." *Journal of Banking and Finance,* 13: 9-20.
Fama, E. 1985. "What`s different about banks?" *Journal of Monetary Economics,* 15: 29-40.
Gertler, Mark, Marvin Goodfriend and Laurence Weiss. 1988. "Financial structure and aggregate economic activity: An overview." *Journal of Money, Credit and Banking,* 20: (3, part 2): 559-588.
Bernanke, Ben S. 1993. "Credit in the macro economy." *Federal Reserve Bank of New York, Quarterly Review,* Spring.
Vale, B. 1993. "The dual role of demand deposits under asymmetric information." *Scandinavian Journal of Economics,* 95: 77-95.

Course outline

- Inter mediation of credit via banks or direct placement of debt in the market
- Market imperfections and possibilities of market determined rationing of credit
- Implications for new classical welfare theory and the Miller-Modigliani theorem
- Market power and customer relations
- Macroeconomics and credit
- Deposit insurance and bank runs
- Possible explanations of banking crises

Computer-based tools

No computer based tool in this course

Course structure

30 hours of lecturing over selected topics

Evaluation

A three-hour written exam based on the required text and the lectures.

Evaluation code(s)

GRA 66111

Aids at the examination

Berck, Peter and Knut Sydsæter. 1991. Economists' mathematical manual. Berlin: Springer Verlag.

Makeup exam

At the next regular exam

Marketing

GRA 6410 Advanced Topics in Consumer Behavior

Program
Advanced Specialization Course, Master of Science (Marketing)

Responsible for the course
Erik Olson

Department
Marketing

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
This course will involve the critical review of selected topics in consumer behavior. Course materials and class discussions will revolve around current theoretical research and methodological issues in consumer behavior. The course is designed for people who have a good basic understanding of consumer behavior issues.

Prerequisites
GRA 6413 Consumer Behavior or equivalent courses.

Compulsory literature
Research based articles to be distributed covering the topics chosen.

Recommended literature

Course outline
· Topics chosen in part from the current research interests of instructor and/or students. In the past these have included in the past Information Search, Cognitive and Affective Processing, Perceptions of Risk, Sponsorship Effectiveness, Consumer Protection, Decision Aid Design, Internet impact on Consumer Behavior, and Methodological Alternatives to Studying Behavior Issues

Evaluation
Critical Review and Research Design Paper of 20 pages to be done individually is worth 50% of final grade.
Critical Review Paper and Research Design Paper of 15 pages to be done individually is worth 30% of final grade.
Class Participation is worth 20% of final grade

Evaluation code(s)
GRA 64101 for Critical Review paper 1 worth 50% of final grade.
GRA 64102 for Critical Review paper 2 worth 30% of final grade.
GRA 64103 for Class Participation is worth 20% of final grade.

Makeup exam
The next time the course is offered

GRA 6411 Marketing Models

Program
Advanced Specialization Course, Master of Science (Marketing)

Responsible for the course
Fred Selnes

Department
Marketing

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
As we move further into the information age, analysis tools for identifying and tracking customer needs and for identifying customer segments are becoming increasingly important. There is a massive amount of customer information being captured through electronic interactions with customers. . The objective of this course is to introduce students to model building in marketing and apply it to analyzing customer databases. Upon completing this course, the student should have working knowledge of modeling approaches in marketing and an appreciation of their potential and limitations of such techniques.

Prerequisites
GRA 6020 Multivariate Statistics and GRA 6405 Marketing Research

Compulsory literature
Berry, Michael J. A. and Gordon Linoff. 2000. *Mastering data mining: The art and science of customer relationship management.* New York, N.Y.: Wiley.
Articles: A list will be provided on the firs day of class and on the WEB.

Course outline
Major topics that will be covered:
Market information Sources
Non-linear response functions
Buyer behavior models
Datamining techniques
Customer Lifetime Value
Segmentation
Pricing
Promotion
Loyalty programs
Forecasting

Course structure
The class will be organized around discussing selected topics illustrated by theoretical articles, mathematical models and management related cases. The students are expected to be well prepared and highly involved in the discussions.

Students will be required to conduct in-depth quantitative modeling of a marketing problem. Structuring the marketing problem is a key to a good model, and the students will present their marketing problem after about five weeks in the

course. Developing a model solution will involve using data from a customer database, spreadsheet analysis to and use of SPSS. Students will present a 90% finished term paper in the last week of class.

Evaluation
25% Class Participation
50% Term Paper
25% Three hour written exam

Evaluation code(s)
Provided by the MSc Office

Aids at the examination
Calculator

Makeup exam
At the next ordinary exam.

NOTE! This course will probably be replaced by a new course. More information will follow in September 2000.

GRA 6412 Interorganizational Relations

Program
Advanced Specialization Course, Master of Science (International Business), Master of Science (Marketing)

Responsible for the course
Harald Biong

Department
Marketing

Term
MSc: Fall

Credits/ECTS Credits
2/6

Objective
The objective of the course is to give an overview of the main theoretical perspectives in the field of Interorganizational relations. The course will draw on insights from organizational economics (transaction cost and agency theory), socio-political perspectives on organizations (resource dependence theory, power and conflict theory) contractual theory (relational contracting) and network perspectives. These theoretical perspectives provide a basis for analysis of how firms establish and organize relationships with customers, alliance partners, suppliers, and distributors. The main emphasis in the course will, however, be on issues related to the organization and governance of distribution channels, i.e. an Interorganizational system involved with the task of making goods, services, and ideas available for consumption - in domestic as well as foreign markets.

Prerequisites
The course requires some prior knowledge - preferably at an intermediate level - of organization theory, marketing and microeconomics. A useful refresher/introduction to the course can be found in;
Douma, Sytse and Hein Schreuder.1998. Economic approaches to organizations. 2nd ed. New York : Prentice-Hall

Compulsory literature
Packet of readings

Recommended literature
Milgrom, Paul and John Roberts. 1992. *Economics, organization and management.* Englewood Cliffs: Prentice Hall

Course outline
1. Introduction to the course
2. Organizational economics: Transaction cost theory
3. Organizational economics: Transaction cost theory
4. Organizational economics: Agency theory
5. Networks
6. Power and conflict in Interorganizational relations
7. Political economy model
8. Relational contracting and cooperative relations between organizations
9. Methodological issues in Interorganizational research
10. Some alternative theoretical perspectives. Summary

Class activity is divided among lectures, class discussions, and presentations by the students of assigned readings. Active class participation is expected.

Computer-based tools
None

Course structure
The general teaching format is student presentations of assigned readings, class discussion of the readings, supplemented with short lectures. Active class participation is expected and a prerequisite.

Evaluation
Class participation (30%)
Term paper (70%)

Evaluation code(s)
GRA 64121

Aids at the examination
All aids permitted

Makeup exam
At the next regular exam

GRA 6414 Advanced Marketing Research

Program
Advanced Specialization Course, Master of Science (Marketing)

Responsible for the course
Ulf Henning Olsson

Department
Economics

Term
MSc: Winter

Credits/ECTS Credits
2/6

Objective
This course is designed to give students a working knowledge of the techniques used in marketing research by both practitioners and academics. Developing a research design, multivariate approaches to scale development, and hypothesis testing will be among the topics covered.

Prerequisites
Recommended course GRA 6413 /GRA 4101 Marketing Research.
Suggested pre-readings for students with limited marketing research background:
Churchill, Gilbert A. 1999. Marketing research: Methodological foundations. 7th ed. Fort Worth: Dryden Press.

Compulsory literature
Byrne, Barbara M. 1998. *Structural equation modeling with LISREL, PRELIS, and SIMPLIS: Basic concepts, applications, and programming*. Mahwah, NJ: L. Erlbaum Associates.
Hair, Joseph F., Rolph E. Anderson, Ronald L. Tatham and William C. Black. 1998. *Multivariate data analysis*. 5th ed. Upper Saddle River, NJ.: Prentice Hall.
Norusis, Marija J. 1993. *SPSS for Windows*. Chicago, IL, SPSS Inc. (base and advanced statistics)
Additional literature will come from original journal articles.

Recommended literature
None.

Course outline
1. Developing Measures
· reliability
· validity
· different scales

2. Multivariate Methods
· multiple regression analysis
· analysis of variance
· factor analysis
· structural equation modeling

Evaluation
Term paper (80%)
Class participation (20%)

Evaluation code(s)
GRA 64141

Aids at the examination
All aids permitted.

Makeup exam
At the next regular exam.

GRA 6421 Service Marketing

Program
Advanced Specialization Course, Master of Science (Marketing)

Responsible for the course
Tor Wallin Andreassen

Department
Marketing

Term
MSc: Spring

Credits/ECTS Credits
2/6

Objective
This advanced course in Service Marketing explores key issues of service marketing. It prepares students for critical thinking about research and management issues pertaining to making, enabling and delivering the service promise. The primary objective is to help students develop a thorough understanding of services. In so doing this course will study and discuss dominant theories used in service research. The material will integrate operations, marketing, strategy, information technology and organizational issues.

Prerequisites
This is an advanced course. Consequently, prior knowledge of marketing theory - preferably at an intermediate level - is required.

Compulsory literature
1) Text book: Oliver, Richard L. 1997. *Satisfaction: A behavioral perspective on the consumer*. Boston, MA.: Irwin/McGraw Hill.

2) Course packet of selected articles

Course structure
Class participation: Active participation is expected throughout the entire class with thoughtful contribute to advance the quality of the discussion. Please note that the frequency (i.e., the quantity) of your interventions in class is not a key criterion for effective class participation. The classroom should be considered a laboratory in which you can explore your thinking. Criteria that are useful in measuring effective class participation include:
(1) Is the participant a good listener?
(2) Are the points that are made relevant to the topic/discussion? Are they linked to the comments of others?
(3) Do comments show evidence of applying the concepts from the readings to the discussion?
(4) Is there a willingness to test new ideas, or are all comments "safe"? (for example, repetition of articles or reading.)
(5) Do comments clarify or build upon the important aspects of earlier comments and lead to a clearer statement of the concepts being covered and the problems being addressed?

Student project: Written papers are due at the start of class.
(1) Papers should be printed, double spaced, with normal margins. The name of the article should be on the first page of the text with your names, date, and course number. An executive summary is not required nor expected.
(2) The page limit for each paper is five pages of text, plus exhibits. Note that these are maximum limits. Papers should be concise and coherent.
(3) Please proofread/spellcheck your paper before turning it in. Papers for this course should be of the same quality that you would provide to the management of the business.

Term paper: Students can chose from six predefined topics (see syllabus). Each student chooses one theme. A proposal (one page) is to be handed in one week later for approval. Paper to be handed in by the end of the course, must be no longer than 15 pages.

Evaluation
Your course grade will be based on the following activities and weights:

Class Participation	20%	(individual)
Student project	20%	(2 article write-ups; 2x10%. Team based)
1 Term paper	60%	(individual)
	100%	

Note 1: Pleas note that the final grade in this course is primarily based on individual activities.

Note 2: Final Course Grades, which will be converted into a z score (i.e. a scores that tells you how many standard deviation units above or below the mean a value falls), will depend on rank-order of individual students' weighted scores on all course tasks.

Evaluation code(s)
GRA 64211

Makeup exam
The next time the course is offered

New general study regulations for the Norwegian School of Management BI. Adopted by the Senate on 12 March 1998

Study Regulations for the Norwegian School of Management BI

Contents:

Chapter I - General rules

§1 Whom do the regulations apply to

These regulations apply to all students at the Norwegian School of Management BI. For the purpose of these Regulations a student means a person who has a written, binding contract of study with the Norwegian School of Management BI that is still in force.

§2 The students' duty to acquire and obtain information

Every student has a duty to acquaint himself/herself with the rules and regulations in force at the Norwegian School of Management BI, as well as the special rules that apply to the program attended by the student. Furthermore, the student has an obligation to acquaint himself with the curricula, examination plans, routines relating to registration for examinations, and the prerequisites for sitting examinations. The student has a duty to inform the Norwegian School of Management BI about a change of name and address.

§3 Admission

a) An applicant who accepts an offer for a place of study must, within a given time limit, return a signed contract of study. Through such an acceptance the applicant is bindingly registered as a student at the Norwegian School of Management BI with all the obligations following from this. Applicants can, however, withdraw from the program before it starts provided that written notification of this is given by registered letter within the time limits specified in the contract of study.

b) Within the framework of the above specific admission requirements apply to each study program.

c) A student who has accepted a place of study at one of the study programs of the Norwegian School of Management BI may change program if he/she is later offered a place of study, which he/she has accepted, at one of the school's other programs.

d) This section does not apply to in-company courses. Admission to such courses is governed by special rules, cf. Chapter IV.

e) Appeals in respect of formal errors relating to the processing of the application for admission must be made to a special committee appointed by the Senate of the Norwegian School of Management, or by someone authorized by the Board to do this.

§4 Tuition fees

a) Every student has a duty to pay the tuition fee for the fixed period of study for the relevant program, cf. also §5. The fixed period of study for each program and any time limit for the prolongation of the period of study are stated in the specific rules for each study program. A student is obliged to pay the tuition fee for the fixed period of study even if he/she completes the program in a shorter period of time. Students granted exemption from examinations on study programs offered by the Norwegian School of Management BI on the basis of examinations taken at other institutions are not given any reductions in tuition fees. A certificate is not issued until the student has met his/her financial obligations towards the Norwegian School of Management BI.

b) Failure to pay the tuition fee will entail loss of the place of study and regular legal recovery of any amount due.

§5 Withdrawal, interruption of study and leave of absence

a) Should a student wish to withdraw from a course or a study program, such withdrawal is possible within the deadlines stated in the specific rules for each study program. The Norwegian School of Management BI must be notified of the withdrawal by registered mail; not until then will the withdrawal of the student be registered, and the student be free from any further obligations of payment.

b) If justified by particularly weighty reasons, e.g. serious illness, a student can apply for withdrawal from his/her study during the academic year and be free from any further obligations of payment. The reason for the withdrawal must be documented by a medical certificate or other relevant documentation. On the basis of this documentation the Norwegian School of Management BI will decide whether sufficient reason for withdrawal exists.

c) Students who have withdrawn from a study program will have to apply for readmission if they want to resume their study at a later date.

d) Students have the opportunity to apply for a leave of absence (suspension of study) of up to one year's duration in order, for example, to do their national service or for other weighty reasons. In case of pregnancy, students, following an application, may be granted a leave of absence of up to one year's duration for each pregnancy. An application for leave of absence, with reasons and requested duration stated, must be sent by registered mail.

§6 Disciplinary regulations

a) A disciplinary punishment can be imposed on students who are found guilty of gross offence against the rules and regulations in force at the Norwegian School of Management BI. This also applies to students who have shown unworthy conduct harming or likely to harm the general reputation of the Norwegian School of Management BI. The Bard of Governors, with a 2/3 majority, can decide to expel a student for a certain period of time or forever.

b) As regards violation of the rules relating to examinations (cheating) the specific rules stated in Chapter II are referred to.

§7 Diplomas

On the completion of a study program a candidate will receive a diploma showing that he/she has met the requirements stated for the study program in question, and also showing the grades he/she has obtained at the required examinations. A diploma is not issued until the candidate has met all his/her financial obligations towards the Norwegian School of Management BI.

Chapter II - Examinations

§8 Definitions

a) For the purpose of these regulations *an examination* means an arrangement by which the skills and knowledge of the student are systematically assessed in accordance with academic norms in order to determine a grade expressing the level of knowledge and skills reached by the student.

b) An examination may apply to a complete course, parts of a course, or several courses.

c) For the purpose of these Regulations a *re-sit* means a new examination.

§9 Forms of examination

a) The forms of examination in force at present are the following:

- Written examinations
- Oral examinations
- Term papers
- Presentations in class

Further rules are provided in the specific rules for each study program, where such rules have been given.

b) Form of examination, allowed aids at the examination, as well as examination group size, if relevant, are stated in the descriptions of courses or subject areas.

c) If justified by particularly weighty reasons a candidate may apply to the relevant director of study to take an oral examination instead of a written one.

§10 Syllabus

All examinations are based on the syllabus in force at any given time

§11 Exemption from examinations

Following an application the Norwegian School of Management BI may exempt a student from taking the examination on a specific course on the basis of examinations taken at the Norwegian School of Management BI or at other schools or universities. Such an application must be sent to the administrative unit for the relevant study program.

§12 The right to sit for an examination

Students who meet the following requirements have the right to sit for an examination:

1. Have a contract of study authorizing admission to the relevant examination.
2. Meet any special academic or other requirements for participation in the relevant examination.
3. Are registered for the examination within the registration deadline.
4. *Have made fewer attempts to take the relevant examination than provided for in the contract of study, cf. § 18.*
5. Have paid any tuition fees due.

§13 Participation in and attendance at examinations

a) *An attempt at taking an examination is considered to have been made if the student is registered for the relevant examination within the deadline for withdrawal from the examination, and if he/she has not provided documentation for legitimate absence, e.g. illness, from the examination within two weeks of the date of the examination.*

b) When appearing for the examination candidates must produce valid identification with a photo. Examination candidates who are not able to prove their identity can be dismissed from the premises, cf. § 23 c).

§14 Examination fee

a) The examination fee for the first attempt to take an examination is usually included in the tuition fee, cf. § 12, no. 5. Exceptions, however, may occur, and if so, information about such exceptions will be provided in each individual case.

b) The re-sit fee must be paid separately.

§15 Extra time for examinations

Within specified time limits the candidate may apply in writing to the college/center of study where he/she is a student for a prolongation of the time for an examination. Documentation by an expert person of the grounds on which the application is based must be enclosed with the application. This documentation must be dated in the same semester as the examination is to be taken. A special application form must be used.

§16 Cheating

If an examination candidate is caught cheating or attempting to cheat, this will be reported to the Vice President of the relevant unit who in each individual case must decide what action should be taken. The candidate will be informed about the decision; it will also be reported to the Vice President for Administration and Finance in the form of an anonymous summary. The Vice President for Administration and Finance will include this in the precedent file.

The decision taken by the Vice President for a unit can be appealed against. The time limit for an appeal is three weeks after the candidate has been informed about the decision. The appeal must be sent to the Vice President for Administration and Finance, who will prepare the case for the Board of Governors.

The normal reaction to cheating is cancellation of all the examination papers produced by the candidate during the relevant semester/term, in addition to one year's expulsion from the Norwegian School of Management BI. In case of group examinations all the participants have an independent responsibility for the complete examination paper.

§17 Re-sit

a) A candidate can make no more than three attempts at taking an examination.

b) If a course is omitted without being replaced by a new course, two extra examinations are normally held.

c) The provisions under a) and b) do not apply for the following degrees: Master of Business Administration, Executive Master of Business Administration and Master of Science. The re-sit arrangements for students on these programs are stated in the specific rules for these programs, cf. Chapter IV.

§18 Grading

a) Normally, examination papers are graded by two independent examiners, one of whom is not permanently associated with the Norwegian School of Management BI.

b) Different parts of the examination can be weighted independently. The weighting arrangement must be stated in the question paper, and it must be used in the process of grading.

c) In case of a re-sit the best grade will apply.

d) An examinee who withdraws from the examination pursuant to §23 f), will received the grade *Failed.*

§19 Appeals relating to grades

a) *Regulations relating to justification and appeals against grades at universities and colleges* adopted by the Ministry of Education, Research and Church Affairs on 19 January 1973 apply correspondingly.

b) If grading guidelines have been given, these must be available for the candidates simultaneously with the completion of the grading for the relevant examination period.

c) The candidate is entitled to an explanation of the result of the examination. This explanation can be given either orally or in writing by one of the examiners. A demand for such an explanation must be based on facts and submitted no later than two weeks from the time mentioned under b) above.

d) A grade can be appealed against. Such an appeal must be submitted no later than one week after the explanation of the grade has been given. In case of a group examination the appeal must be signed by all the examinees. The appeal will be dealt with by a committee appointed by the Board of Governors, or by someone authorized by the Board.

e) Should the committee find an obvious disparity between the performance of the candidate at the examination and the grade given, the committee will determine a new grade. An obvious disparity exists if the committee finds that the grade originally given must be changed by at least 0.3. Exceptions from this rule are the second year of the Associate Degree Program in Real Estate Studies, where the change must be at least 0.5, and the Master of Science Program where the change must be at least 0.2. The change can be in the candidate's favor or disfavor. The committee's decision is final.

f) Oral examinations and presentations in class cannot be appealed against.

g) The Board of Governors can give further rules relating to the basis for a grade, the form and content of the appeal, the deadline for an appeal, the composition of the appeals committee, which body the appeal must be made to, and what is to be considered an obvious disparity under this rule.

h) In addition the rules in Chapter VI of the Public Administration Act apply.

§20 Grades and diplomas

a) The scale of grades for individual examinations is 1.0, 1.1, 1.2, etc. up to 6.0 where 1.0 is the best grade. The lowest pass grade for individual examinations is 4.0. The grading intervals for individual examinations are as follows:

1.0 – 1.9	Excellent
2.0 – 2.5	Very Good
2.6 – 3.2	Good
3.3 – 4.0	Fair
4.1 – 6.0	Failed

b) In case of a failed examination the numerical grade will not be communicated to the student.

c) The grade point average for a completed study program is determined with two decimal places. To obtain a degree/final diploma the student must have a grade point average of at least 3.25. An exception from this rule is the second year of the Associate Degree Program in Real Estate Studies where the grade point average must be at least 4.00. On the diploma the grade point average intervals are as follows:

1.00 – 1.99	Excellent
2.00 – 2.50	Very Good
2.51 – 3.25	Good

d) The scale 3.26 – 4.00 is used at the Associate Degree Program in Real Estate Studies according to special regulations.

e) The grade point average is determined on the basis of the number of credits for the relevant offerings. With respect to the Financial Services Studies and the Registered Auditor Program the special requirements stated in the specific rules for these programs also apply.

f) A grade point average will normally not be given if more than 20% of the fixed number of credits for the relevant program has been approved from other educational institutions.

g) For the titles Master of Business Administration, Executive Master of Business Administration and Master of Science different grading scales are used as stated in the special rules for these offerings, cf. Chapter IV.

§21 Special rules for multiple choice examinations

a) The candidates must use the answer sheet that is handed out and follow the attached instructions.

b) The grading of multiple choice examinations consists in checking the answer alternative chosen by the candidate against the key. For this type of examination grading guidelines are not given.

c) In case of an appeal against a grade given the candidate's answer sheet is checked once more against the key. The result of this check must be communicated to the candidate in writing together with a possible new and final grade.

§22 Rules relating to order at examinations

a) The candidate must be on the examination premises at least 15 minutes before the examination starts. Candidates who arrive after the examination has started, or who have been informed in writing to sit for the examination in other examination premises can be refused admittance.

b) Candidates who have been granted extra time for the examination, cf. §16 must bring with them written certification of this to be presented at the examination. Candidates with extra time for the examination must appear 20 minutes before the examination begins.

c) At request candidates must present proof of identity, cf. §14. Valid identification includes a student identity card with a photo, a driving license, a passport or some other document with a photo that is accepted as public proof of identity. Candidates without valid identification may be refused to sit for the examination.

d) The use of aids that are not allowed is to be considered as cheating, cf. §17. Candidates are not allowed to borrow aids from each other. The candidate has a duty to acquaint himself with what aids are allowed. Bags, etc. must be left where assigned. Mobile phones, bleepers, PCs, etc. are not allowed in the examination premises.

e) The front page of the question paper contains a specification of its contents. The candidate is responsible for checking that this information corresponds with the question paper he/she has received. The candidate can only use the rough sheets and copy sheets that are handed out by the invigilators. On each copy sheet the registration number, examination code and page number must be filled in. On the first page, moreover, the course name and the place where the examination is held must be specified. For regular, written examinations a pencil cannot be used for copying out. A rough copy that has been handed in is not accepted as an answer.

f) Candidates who withdraw from the examination after the question paper has been handed out, are not allowed to leave the premises until after one hour and after the attendance list has been signed. In such cases the candidate will receive a *Failed*, cf. §19 d).

g) When a candidate wants to leave the examination premises temporarily, one of the invigilators must be notified. The candidate will remain seated until the invigilator allows him to rise. No one can leave the examination premises until one hour after the examination has started.

h) During breaks outside the examination premises the candidate has a duty to observe any instructions given by the invigilator. The candidate is not allowed to communicate with anybody but the inviglators or leave the immediate surroundings of the examination premises.

Chapter III - Other rules

§23 Amendments

a) At any given time the Norwegian School of Management BI has the right to make amendments to rules and regulations relating to the institution. This includes the right to change curricula, the time and place of the teaching, teachers, tuition fees, etc., and the right to deviate from information given in the various publications issued by the different units of the Norwegian School of Management BI.

b) A change in tuition fees must be approved by the Board of Governors of the Norwegian School of Management BI.

c) Amendments relating to rules and regulations, as well as other provisions must be approved by the Senate of the Norwegian School of Management or a body authorized by the Senate to do so.

d) Amendments relating to curricula must be approved by the Senate of the Norwegian School of Management or a body authorized by the Senate to do so.

e) The students must be informed about any changes and as soon as possible and in an appropriate way.

§24 Reservations

The Norwegian School of Management BI makes reservations as regards possible printing errors in the information to students, course descriptions and other documentation relating to each program.

§25 Entry into Force

These rules and regulations shall enter into force on 1 June 1998.

Chapter IV - Special rules

§26 Special rules for the various study programs

Special rules have been prepared for the following offerings:

- Master of Business Administration
- Master of Science
- Master of Management
- Master of Business and Economics
- Registered Auditor
- Associate in Real Estate Studies
- Studies at the Norwegian School of Management BI – the Business Colleges, the School of Marketing and Distance Learning
- Studies at the Norwegian School of Management BI – Financial Services Studies

Further and continuing education courses offered by the Norwegian School of enter into force effective from September 1, 1997.

Academic Regulations for the Degree of Master of Science

(Adopted by the Senate, May 1994. Revised February 21, 1995, January 21, 1997, May 26, 1998 and March 8, 1999, April 4, 2000)

§ 30-1 Admissions

Entrance Requirements

Applicants must, as a minimum, successfully have completed a three-year university degree course or the equivalent at an approved institution of higher education, with a range of subjects including business and management-related courses.
Applicants with education completed in Norway should have achieved a Grade Point Average (GPA) of 2,5 or better relative to the grade scale used by NSM.
Applications with education completed in other countries than Norway must have achieved a GPA of 3.0 (B) or the equivalent.
Admission to the program is conditioned by a satisfactory test score of at least 500 in the Graduate Management Admission Test (GMAT).
Applicants who are not native speakers of English may be required to take the Test of English as a Foreign Language (TOEFL) or an equivalent test approved by NSM.
Exemption from the English language requirement may be made for applicants who have successfully completed at least one year of university education with English as the language of instruction and study.
Non-Norwegian qualifications and credentials are assessed according to the general rules applying for entrance to Norwegian universities and institutions of higher education.

§ 30-2 Duration of Studies

The Master of Science degree is a two-year program equivalent to 24 months of full-time study.
For any course or examination taken after this 24 month period the students will be charged a fee;
For every two-credit course: a single course fee;
For every examination: an examination fee according to the prevailing fees;
For the thesis refer to § 30-6.

The maximum period available for retaking courses, examinations or deliver thesis work after the normal program period of 24 months, is two years. After that period NSM resumes no further responsibility.

Students who need to retake courses, examination or do thesis work after the 24 months program period because of extraordinary circumstances during the program period are allowed to do so free of charge upon approval by the Dean of the MSc Program. In order to obtain approval an application supported by relevant documentation should be submitted to the Dean of the Master of Science program."

§ 30-3 Fees

Tuition Fee
Accepted applicants may be asked to place a tuition fee deposit in a Norwegian bank. The amount of the deposit will be specified in the Student Contract.
Transfer of credits from previous education
Applicants with an advanced academic standing who are awarded more than 6 credits waiver through a transfer of credits from previous graduate education, may apply for a tuition fee reduction.

Student Union Fee
An obligatory Student Union membership fee covering the entire program period is charged to all registered degree students at the beginning of the program.

Deferral
In exceptional cases, and upon application, a deferral of study start from one academic year to the next may be granted. If studies are not taken up after one year, a new application for admission in accordance with normal application procedures is required.

§ 30-4 Degree Requirements

Academic Title
Completion of 40 credits and a GPA of 3.0 or better give the right to use the title 'Master of Science'. Students who attain an average grade of 3.75 or better are given the right to use the title 'Master of Science with Honors'.

Degree Requirements
The Master of Science degree is awarded upon successful completion of a combination of common courses, specialization courses, and a thesis, as follows:

5 common courses	10 credits
5 specialization courses	10 credits
5 advanced specialization courses	10 credits
Thesis	10 credits

Mandatory courses within the specialization are specified in the Student Handbook. Deviations from the specified range of courses must be approved by the Program Director of the specialization concerned. The chosen specialization appears on the degree diploma issued for graduation and the combination of courses chosen appear on the transcript of grades.

Exemptions From Degree Requirements
There are two ways in which students may be exempted from the degree requirements mentioned above under ' degree requirements':

1. Through a *course waiver* for one of the common courses if it is established that the student has completed a course prior to the MSc Program that was similar in content and level to the common course. Instead of the waived common course the student takes another (regular specialization or common) course.
2. Through a *transfer of credit* if it is established that the student has attended a course at graduate level prior to or during the MSc Program that was similar in content and level to a common or regular specialization course of the MSc Program. If credits are transferred students need not to elect another course instead. The maximum number of credits to be transferred from previous graduate education is 14 (fourteen).

Course waivers and transfer of credits are at the discretion of the Dean of the Master of Science program. Applications should be supported by relevant documents(e.g. course descriptions, syllabi).

Extra Course Load
Students may complete a maximum of three courses (six credits) in addition to the required number of credits for the degree without additional charge, provided that examinations for these courses are taken within the normal study period of 24 months. Note that extra courses will *not* be counted towards the Grade Point Average (GPA).

§ 30-5 Examinations and Evaluation Procedures

Grade Scale
For the Master of Science Degree, the following grade scale is used for courses:

Numerical grade	Explanation
4.0 - 3.9	Excellent
3.8 - 3.5	Very Good
3.4 - 3.0	Good
2.9 - 2.6	Acceptable
2.5 - 1.7	Pass
1.6 - 1.0	Fail

Only grades for required degree courses are included in the overall GPA.
The GPA is calculated on the basis of the one-decimal grades for the separate courses, but are expressed numerically with two decimals.

Formal Examination Procedures
A course examination can consist of one or more parts. All parts of an examination must be passed within the same academic term in order to obtain a grade for that course.

Announcement of Grades
Examination results are posted on the appropriate bulletin boards as soon as they are released. Final grades should be released within 25 working days after the date of examination or term paper delivery date, Individual notification of examination results is given to each student shortly after the ultimate date of release of all results for the examination period concerned.

Re-Take Examinations
Re-take examinations are permitted provided that required examination fees are paid when registering for the examination.

§ 30-6 Thesis

1. The MSc thesis represents 10 credits

2. The MSc thesis shall be written in groups of two students. Students who wish to write their thesis individually may apply for this with the Program Director of the specialization concerned.

3. Students may be called upon to orally defend the thesis.

4. The MSc thesis consists of two gradable parts:
- A preliminary thesis report worth 20 % of the final thesis grade (up to 30 pages),
- The thesis, worth 80 % of the final thesis grade.

5. The following dates should be adhered to:
   - May 1, first year: delivery of Thesis Registration Form
   - January 10, second year: delivery of a preliminary thesis report
   - September 1, *after the* second year: delivery of thesis.

6. The grade of the preliminary thesis report and the thesis will be announced within 35 working days after the date of submittance, provided that they were submitted before the deadlines mentioned above.

7. A student may appeal against the grade received for the preliminary thesis report and the thesis. The same procedure as under §19 ' Appeals relating to grades' applies.

8. If the thesis is considered to be a ' fail', the student has two possibilities:
1. Rewrite the thesis and be able to attain a maximum grade of 1.7. (the lowest pass grade),
2. Write a new thesis, and have it graded using the normal scale.

9. If a new thesis is written in case of a 'Fail' of the first thesis, the student is charged an extra half year's tuition fee.

10. If the thesis is delivered after the thesis delivery deadline the students will be charged with an extension fee of 10% of the tuition fee of the academic year preceding the delivery deadline.

11. A thesis may be handed in up to two years after the thesis delivery deadline and if point 9 applies, upon payment of the of the extra tuition fee and if point 10 applies upon payment of the extension fee. After this period NSM resumes no further responsibility.

12. Extensions of the deadlines mentioned above without tuition fee consequences may be given in case of extraordinary circumstances. Such extensions have to be approved by the Dean of the Master of Science program. Applications need be to supported by relevant documentation regarding the extraordinary circumstances.