

THE HANDBOOK OF STUDY

For the study programmes at

UMB SCHOOL OF ECONOMICS AND BUSINESS

DEPARTMENT OF ECONOMICS AND RESOURCE MANAGEMENT

NORWEGIAN UNIVERSITY OF LIFE SCIENCES



2010/2011

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1 STUDIES AT NORWEGIAN UNIVERSITY OF LIFE SCIENCES

Norwegian University of Life Sciences (UMB) at Aas south of Oslo was founded in 1859 as a pure educational institution. Research was introduced as a primary function in the reorganization of 1897, and currently accounts approximately 50 percent of the activities at the university.

UMB is recognised as a leading international centre of knowledge, focused on higher education and research within environmental- and biosciences. The university's main specialisation areas are:

- Biology
- Environment
- Food
- Land Use and Natural Resource Management

and in addition

- UMB School of Economics and Business

Together with other research institutes established at Aas, UMB provides state-of-the-art knowledge based on a broad range of disciplines. A broad range of study programmes are offered at Bachelor, Master and PhD level.

These include:

- Animal Science
- Applied Mathematics and Statistics
- Aquaculture
- Biotechnology
- **Business Administration**
- Chemistry
- **Development and Natural Resource Economics**
- Ecology and Natural Resource Management
- **Economics**
- **Entrepreneurship and Innovation**
- Environment and Natural Resources
- Food Science
- Forestry
- Landscape Architecture
- Physics
- Plant Science
- Spatial Planning

About 210 of the 660 courses at the Bachelor and Master level are taught in English, as well as many PhD level courses.

12 Master level programmes are conducted fully in English, and one Bachelor programme is fully conducted in English every other year. Besides theoretical and scientific education, emphasis is placed on practical training. Around 20% of UMB students conduct part of their studies abroad

1.1 MEETING TOMORROW'S CHALLENGES

January 2005 the institution received the Norwegian university status. UMB, under Norwegian law and in follow-up to the European Bologna Declaration, is implementing a quality reform and has restructured the courses, credits and degrees to meet European standards.

In total, UMB has some 3 270 students of which about 400 are PhD students. Annually, the University confers about 50 to 60 PhD degrees upon successful candidates. There are many different nationalities at UMB; the international students make up over 15% of all students at the University. Of the 1120 University staff, more than half hold scientific positions.

The UMB is built up of 8 departments, and each department offers a major in the following areas.

1.2 UMB'S DEPARTMENTS AND CENTRES

- Dept. of Animal and Aquacultural Sciences, IHA
- Dept. of Chemistry, Biotechnology and Food Science, IKBM
- Dept. of Ecology and Natural Resource Management, INA
- Dept. of Economics and Resource Management, IØR , **UMB School of
Economics and Business**
- Dept. of Landscape Architecture and Spatial Planning, ILP
- Dept. of Mathematical Sciences and Technology, IMT
- Dept. of Plant and Environmental Sciences, IPM
- Dept. of International Environment and Development Studies, Noragric

- Aquaculture Protein Centre, APC
- Animal Production Experimental Centre, SFF
- Centre for Plant Research in Controlled Climate, SKP
- Centre for Continuing Education, SESU
- Centre for Integrative Genetics, Cigene

2 DEPARTMENT OF ECONOMICS AND RESOURCE MANAGEMENT

The Department of Economics and Resource Management (IØR) is known to be one of the leading university Schools specializing in areas mixing economics and business with natural sciences and technology. IØR has a significant portfolio of projects financed by EU, the Nordic Council, the Research Council of Norway various Norwegian government ministries and private companies.

IØR was one of the first university departments in economics to introduce Bachelor's and Master's degrees as an integrated part of the study programs. The department offers the following study programs:

- Bachelor in Business Administration
- Bachelor in Economics
- Master in Business Administration
- Master in Economics (English)
- Master of Science in Development and Natural Resource Economics (English)
- Master in Entrepreneurship and Innovation

2.1 THE PURPOSE OF THE STUDY

1. The purpose of the 3 -year study is to reach a degree: Bachelor of Science, and additional two years of study the candidates may reach the Master of Science degree.
2. The curriculum is designed to enhance students creativity and educate students in their analytical skills, critical thinking as well as in the ability to cooperate in problem-solving tasks.
3. The bulk of the required curriculum is designed to develop an understanding of the economic and social systems. In addition encourage the students to gain acknowledge in biological and technological systems and processes to understand the relationship between them.
4. The particular objective of the program is to enable the student to apply business administration, economics and social sciences in the context of concrete situations.
5. We focus particularly on training the students for managerial and technical specialist positions in industry and public service.

The areas of specialization have some common core courses. These courses are based on a required knowledge of economic theory, quantitative and qualitative methods, and applied

sciences. The courses are at four levels. The code numbers describe the level in the following fashion:

100 - 199	Introduction courses – Bachelor-courses
200 - 299	Intermediate courses – Can be both bachelor and master level
300 - 399	Graduate courses – MSc courses
400 - 499	Ph.D. courses

The student makes the main profile of her/his study when determining the combination of the master courses. Before the student can follow the graduate courses, she/he needs background in the required intermediate courses from this university or from university colleges in their bachelor study.

In addition, there is also possible to make a minor of biology and agriculture, especially on bachelor level. The students are free to choose between a large numbers of courses that UMB offers. The number of ECTS/credits of free choice will vary depending on the form of specialization.

2.1.1 THE ACADEMIC CALENDAR

The academic year has two semesters and five terms.

Semesters and Terms	Code	Teaching/exam	Assignments for the exam
Fall/Autumn	F		
Start		Week 32, Monday	
August block:	Aug	Week 32, 33, 34, including Monday in week 35	
Exam in block	Aug	Monday in week 35	Friday in week 32
Fall parallel	F	Tuesday in week- 35 to Friday in week 48	
Exam	F	Week 49 and 50	15 th . September
Re-exam (S/Aug)	F	Week 51 - in 2010	15 th October – Contact SiT
Spring	S		
Re-exam (Aug/S)		Week 1 (not for 2011)	Contact SiT ^{*)}
January block:	Jan	Week 1, 2, 3, including Monday in week 4	
Exam in block	Jan	Monday in week 4	Friday week 2
Spring parallel	S	Tuesday in week 4 to Friday in week 18	
Exam	S	Week 19 – 21 (depending on holidays)	15 th February
Re-exam (F/Jan)		Week 21	15 th March Contact SiT ^{*)}
June block	S	Week 22 – 25, (and week 31 /32)	
Exam in block	Jun	Friday in week 25	15 th February

^{*)} SiT= Student information Office

Details in the academic calendar enclosed back in this book and on SiT, english.

Normal work load for a semester is 30 ECTS, 25 ECTS in the parallel and 5 ECTS in the block. In the block period the students are concentrating about only one course.

2.1.1.1 Code of the programs

B-ØA -	Bachelor in Business Administration
B-ECON -	Bachelor in Economics
M-ØA -	Master in Business Administration
M-ECON -	Master in Economics (English)
M-DNRE -	Master of Science in Development and Natural Resource Economics (English)
M-EI -	Master in Entrepreneurship and Innovation

3 THE PROGRAMMES OF STUDY

3.1 UNDERGRADUATE STUDIES

3.1.1 BACHELOR IN BUSINESS ADMINISTRATION

The aim of the program is to educate reflective professionals qualified for specialist and advisory tasks within the fields of economics and administration in firms, organizations and public administration. The studies should form the foundation of life-long learning. In addition the candidates can get special qualifications in the areas of natural sciences and technology that may make them attractive in the job market.

Bachelor in business administration is 3 years of study and the students have to achieve 180 ECTS. The mandatory 125 ECTS consists of business-, administration-, economics- and methodology subjects. The students can choose subjects from most of the University courses.

In the last year the students can make their own profile and/or study abroad.

Bachelor-ØA	Mandatory	ECTS	Term	
Year 1	AOS130	Introduction to Organisation Theory	5	Aug
	PFI100	Examen Philosophicum	10	F
	ECN110	Introduction to Economics - Micro	5	F
	MATH100	Mathematics	10	F
	ECN120	Introduction to Economics - Macro	5	Jan
	BUS133	Excel for Business	5	S
	BUS100	Managerial Economics, Introduction	5	S
	AOS120	Marketing	5	S
	BUS110	Accounting – Financial Reporting	10	S
		60		

Bachelor-ØA	Mandatory	ECTS	Term	
Year 2	AOS230	The Psychology of Organisation and Leadership	5	Aug
	ECN220	Economics II	10	F
	AOS237	Business Strategy	10	F
		Free to choose subjects or (JUS100- Legal Method and Norwegian Legal System)	5	F
	BUS160	Tax Law for Economists	5	Jan
	STAT100	Statistic	10	S
		Free to chose subjects	15	S/Jun
		60		

The last year for the profiles and/or study abroad.

Bachelor-ØA		Mandatory	ECTS	Term
Year 3	BUS220	Finance and Investment	10	F
	AOS240	Research in Social Sciences	5	F
	BUS210	Managerial Accounting and Budgeting	10	S
		Electing profiles or study abroad	35	F + S

Students who are interesting in agriculture may choose such courses in the last year.

We will show the most common profiles in this program:

Profile: Business Decisions Methods and Finance			ECTS	Term
Year 3	BUS220	Finance and Investment	10	F
	AOS240	Research in Social Sciences	5	F
	ECN202	Introduction to Econometrics	5	F
	ECN210	Microeconomics – Consumers, Producers, Market and Welfare	10	F
		Free to choose	5	Jan
	BUS230	Management Science - Principles	10	S
	JUS102	Law of Contract and Companies (JUS100 required before)	5	S
		Free to choose	10	S
	BUS233	Management Information Systems	5	Jun
			60	

Profile: Leadership and Innovation			ECTS	Term
Year 3	BUS220	Finance and Investment	10	F
	AOS240	Research in Social Sciences	5	F
	TIP200	Product Development and Design	10	F
	BUS240	Operation Management	10	F
		Free to choose	5	Jan
	TIP100	Technical Innovation, recommended before TIP200	5	S
	BUS271	Business Start-Up	5	S
		Free to choose	10-15	S
	BUS233	Management Information Systems	5	Jun
			60	

Profile: Accounting and Taxation

			ECTS	Term	
Year 3	BUS112	Electronic Accounting (Daldata/Agrodata)	5	Aug	
	BUS220	Finance and Investment	10	F	
	AOS240	Research in Social Sciences	5	F	
	JUS100	Legal Method and Norwegian Legal System	5	F	
		Accounting in cooperation with the Østfold College University	10	F	
		Free to choose	5	Jan	
	JUS102	Law for Contract and Companies	5	S	
	JUS210	Law of Real Property I	5	S	
		Taxation Law in cooperation with Østfold College University			
		Free to choose	10	S	
	BUS233	Management Information Systems or	5	Jun	
				60	

Profile: Environment and Economics

			ECTS	Term
Year 3	BUS220	Finance and Investment	10	F
	AOS240	Research in Social Sciences	5	F
	AOS210	Political Structures and Processes	10	F
	ECN210	Microeconomics – Consumers, Producers, Market and Welfare	10	F
	ECN262	Regional Economics and Regional Politics	5	Jan
	ECN150	Development Economics (English in uneven years)	5	S
	ECN271	Project Evaluation and Environmental Valuation	10	S
	ECN170	<i>Environmental- and Resource Economics (before ECN271)</i>	5	S
	ECN140	Economic History (given in even years)	5	S
				60

3.1.2 BACHELOR IN ECONOMICS

The Bachelor in Economics is a three year of study and the students have to reach 180 ECTS, and 85 ECTS is mandatory. In addition the students must choose 20 ECTS in economics on the 200 level.

The available courses are:

ECN230 – International Economics, 5 ECTS (Fall)

ECN260 - Agricultural Policy, 10 ECTS (Fall)

ECN262 - Regional Economics and Regional Policy, 5 ECTS (January)

ECN271 - Project Evaluation and Environmental Valuation, 10 ECTS (Spring)

ECN280 - Energy Economics 10 ECTS (Spring)

Bachelor-ECON	Mandatory	ECTS	Term	
Year 1	AOS130	Introduction to Organisation Theory	5	Aug
	PHI100	Examen Philosophicum	10	F
	ECN110	Introduction to Economics - Micro	5	F
	MATH100	Mathematics	10	F
	ECN120	Introduction to Economics - Macro	5	Jan
	STAT100	Statistics	10	S
		Free to choose	15	S/Jun
		60		
Year 2		Free to choose	5	Aug
	ECN210	Microeconomics – Consumers, Producers, Market and Welfare	10	F
	ECN220	Economics II	10	F
		Free to choose	5	F
		Free to choose	5	Jan
		Free to choose	25	S+ Jun
			60	
Year 3		Free to choose	5	Aug
	ECN211	Microeconomics – Institutions. Games and Market Failures	10	F
	ECN201	Econometrics	10	F
		Free to choose	5	F
		Free to choose	5	Jan
		Free to choose	25	S+Jun
			60	

A study plan including business

Bachelor-ECON			ECTS	Sem
Year 1	AOS130	Introduction to Organisation Theory	5	Aug
	PHI100	Examen Philosophicum	10	F
	ECN110	Introduction to Economics - Micro	5	F
	MATH100	Mathematics	10	F
	ECN120	Introduction to Economics - Macro	5	Jan
	STAT100	Statistics	10	S
	ECN170	Environment and Resource Economics	5	S
	BUS100	Managerial Economics, Introduction	5	S
	BUS133	Excel for Business	5	S
		60		
Year 2				
	ECN210	Microeconomics – Consumers, Producers, Market and Welfare	10	F
	ECN220	Economics II	10	F
	BUS220	Finance and Investment	10	F
	ECN262	Regional Economics and Regional Policy	5	Jan
	ECN140	Economic History (given in even years)	5	S
	BUS271	Business Start-Up	5	S
	BUS210	Managerial Accounting and Budgeting	10	S
		60		
Year 3				
	ECN211	Microeconomics – Institutions. Games and Market Failures	10	F
	ECN201	Econometrics	10	F
	ECN230	International Economics	5	F
	ECN260	Agricultural Policy	10	F
	ECN271	Project Evaluation and Environmental Valuation	10	S
	BUS230	Managerial Science, Principles	10	S
ECN280	Energy Economics	10	S	
		65		

A study plan for Environment and Development

Bachelor-ECON		ECTS	Sem	
Year 1	AOS130	Introduction to Organisation Theory	5	Aug
	PHI100	Examen Philosophicum	10	F
	ECN110	Introduction to Economics - Micro	5	F
	MATH100	Mathematics	10	F
	ECN120	Introduction to Economics - Macro	5	Jan
	STAT100	Statistics	10	S
	ECN170	Environment and Resource Economics	5	S
	ECN150	Introduction to Development Economics	5	S
	BUS133	Excel for Business	5	S
		60		
Year 2				
	ECN210	Microeconomics – Consumers, Producers, Market and Welfare	10	F
	ECN220	Economics II	10	F
	EDS234/ EDS235	Environmental Economics – the Role of Institutions or Political Economy – Institutions and the Environment	5 10	F F
	NATF210	Environmental Monitoring	5	Jan
	ECN140	Economic History (given in even years)	5	S
	EDS215	Sustainable Agriculture and Environment	5	S
			60	
Year 3	EDS201	Introduction to Development Studies	5	Aug
	ECN211	Microeconomics – Institutions. Games and Market Failures	10	F
	ECN201	Econometrics	10	F
	ECN230	International Economics or	5	F
	ECN260	Agricultural Policy	10	F
	ECN271	Project Evaluation and Environmental Valuation	10	S
	BUS230	Managerial Science, Principles	10	S
	ECN280	Energy Economics	10	S
		65		

3.2 GRADUATE STUDIES

Master of Science in Business Administration: The programme satisfies the scientific requirements of civil economy education and has much in common with such study programmes at other institutions in Norway and abroad. The Master's degree programme has many courses in common with the department's two programmes in Economics and Resource Management and Development and Resource Economics.

Graduates from the programme will have a competence that is acknowledged as equally high and relevant as graduates from other Norwegian and international institutions that offer a Master's degree in Business Administration. In addition, the department aims for graduates from UMB to have a special profile focused towards natural sciences and technology, which will make them especially attractive in the job market. Students can specialise in business economy analysis and administration that builds on the courses from the Bachelor's degree. They can also choose courses in logistics, industry development and international economy.

Master of Science in Economics: Modern economics is characterized by complexity and rapid changes. Decision-makers in both the private and public sector demand to an ever higher degree the information that renders it possible to make the right decisions. Economists hold theoretical and methodological knowledge which equips them to function as premise providers in such situations. The programme provides comprehensive training in economic approaches, theories, topics and methods. This degree qualifies for work with economic analyses within business and public administration. It also qualifies for further studies at doctoral level. The programme satisfies the scientific requirements of education on master level in economics and has much in common with such study programmes at other institutions in Norway and abroad. The Master's degree programme has many courses in common with the master program in Development and Natural Resource Economics.

Master in Entrepreneurship and Innovation. Innovation is a key factor for the success of many companies. However, innovation and commercialization is a demanding process where a crucial factor is the ability to evaluate, analyze, implement and commercialize a good or a service. This master program educates candidates that can contribute to the commercialization of their own or other people's ideas for a new product or service.

Acceptance to this program requires a bachelor's degree or equivalent, preferably with a major in science or engineering. Students with a bachelor's degree in economics will also be considered for admission.

Master of Science in Development and Natural Resource Economics. The study program aims to give the students: - a solid basis in economic theory, with a

specialization in development and resource economics; - knowledge, training and practical experience with economic methodologies, as a bridge between theories and policy relevant problems; - deeper insights into the links between the social well-being of rural people, their natural resource base, and the underlying causes of poverty and environmental degradation; - insight into relevant policies for poverty reduction, promotion of economic development and conservation of the natural resource base.

There is a great need for policy-oriented economists who are able to integrate and apply knowledge from resource, environmental, agricultural and development economics. This program has an applied profile, and the students get knowledge, training and practical experience in using economic methodologies, as a bridge between theories and real-world problems.

**60 ECTS of the course work has to be on the 300 level the MSc-programmes.
60 ECTS has to be taken at UMB**

3.2.1 MASTER OF SCIENCE IN BUSINESS ADMINISTRATION

The Master degree is built on the Bachelor in Business Administration.

120 ECTS/credits must be completed:

- **A major of 70 ECTS, consisting of:**
 - 40 ECTS with courses in a profile, where 25 ECTS must be taken within courses marked with a stare and darker colour for the profiles:
 - Finance and Investment
 - Business Management
 - Administration and Leadership
 - For the profile Economics – ECN302 and ECN311 is mandatory and
 - For the profile Energy Economics – ECN302, ECN311, (ECN280 from the bachelor or in addition), ECN380 and ECN301
 - For the profile Environment- and Resource Economics - ECN302, ECN311, (ECN270 from the bachelor or in additon), ECN371, ECN372 and ECN301
 - 30 ECTS master thesis within the major.
- **A minor of 30 ECTS, within a profile different from the major.**
- **20 ECTS free to choose** among almost all courses given at this University

The final Master thesis is mandatory for all Master students and with supervisor at IØR.

Profiles for Master of Science in Business Administration

I	Finance and Investment	ECTS	Term	
*	BUS310	Strategy Implementation (mandatory for all)	5	Aug
	ECN202	Introduction to Econometrics ¹⁾	5	F
*	BUS322	Investment Analysis and Financial Risk Management	10	S
	BUS323	Commodity Market Analysis	10	S
*	BUS321	Empirical Analysis of Financial and Commodity Markets - Theory	5	Jun
*	BUS320	Empirical Analysis of Financial and Commodity Markets II	5	Aug+F
	NBØ310	Valuation for Merges and Acquisitions	10	S
	PHI301	Ethics in Business	5	S
	BUS331	Business Management Science: Methods and Techniques	10	S
	BUS230	Management Science Principles ¹⁾	10	S
	ECN331	International Economics and Finance	5	Aug
	ECN301	Econometric Methods	10	F
	STAT250	Mathematical Statistics	5	Aug
	STAT300	Statistical Data Analysis	10	S
	STAT330	Analysis of Categorical Data	10	S
	MATH250	Partial Differential Equations and Models	10	S
	MATH310	Continuous Dynamical Systems	10	S
	M30-IØR	Master Thesis (mandatory for all)	30	S

1) For students who miss this knowledge from the bachelor

II Business Management		ECTS	Terms	
*	BUS310	Strategy Implementation (mandatory for all)	5	Aug
*	BUS340	Supply Chain Management	5	F
*	BUS331	Business Management Science: Methods and Techniques	10	S
	BUS230	Management Science Principles ¹⁾	10	S
*	BUS312	Advanced Management Accounting	10	F
*	BUS313	Strategy Cost Management	5	S
	BUS314	Corporate Governance	5	S
	PHI301	Ethics in Business	5	S
	ECN373	Environmental Accounting and Management	5	S
	M30-IØR	Master Thesis (mandatory for all)	30	S

III Administration and leadership		ECTS	Terms	
*	BUS310	Strategy Implementation (mandatory for all)	5	Aug
*	AOS331	Organization and Leadership, Theory part	10	S
*	AOS335	Organization and Management	10	F
*	AOS340	Qualitative Methods	5	F
	BUS314	Corporate Governance	5	S
	NADM310/ NADM311	Strategy Development	10	F
	NADM320	Internationalization SMEs	10	F
	NADM330	Leadership and Working Environment	10	Jan+S
	PHI301	Ethics in Business	5	S
	M30-IØR	Master Thesis (mandatory for all)	30	S

1) For students who lack this knowledge from the bachelor

IV Economics		ECTS	Terms	
	BUS310	Strategy Implementation (mandatory for all)	5	Aug
*	ECN302	Mathematics for Economists	5	Aug
*	ECN311	Microeconomics II	10	F
*	ECN270	Resource and Environmental Economics	5	F
	ECN202	Introduction to Econometrics ¹⁾	5	F
	ECN201	Econometrics ¹⁾	10	F
	ECN280	Energy Economics I	10	S
	ECN301	Econometric Methods	10	F
	ECN312	Industrial Organisation	5	F
	ECN320	Macroeconomics III	10	S
	ECN331	International Economics and Finance	5	Aug
	ECN330	Economic Integration and Trade Liberalization	10	F
	ECN350	Development and Environment Economics	15	F
	ECN353	Development Economics, Micro	5	S
	ECN360	Agricultural Policy and Resource Management	10	F
	ECN371	Environmental Economics	10	S
	ECN372	Climate and Environmental Economics	10	F
	ECN373	Environmental Accounting and Management	5	S
	ECN380	Energy Economics II	10	F
	M30-IØR	Master Thesis (mandatory for all)	30	S

1) For students who miss this knowledge from the bachelor

V Environment- and Resource Economics		ECTS	Term	
*	BUS310	Strategy Implementation (mandatory for all)	5	Aug
*	ECN302	Mathematics for Economists	5	Aug
*	ECN311	Microeconomics III	10	F
	ECN270	Resource and Environmental Economics ¹⁾	5	F
*	ECN372	Climate and Environmental Economics	10	F
*	ECN371	Environmental Economics	10	S
	ECN202	Introduction to Econometrics ¹⁾ or (ECN201 10 ECTS)	5	F
*	ECN301	Econometric Methods	10	F
	ECN271	Project Evaluation and Environmental Valuation	10	S
	ECN360	Agricultural Policy and Resource Management	10	F
	ECN373	Environmental Accounting and Management	5	S
	M30-IØR	Master Thesis (mandatory for all)	30	S

1) For students who miss this knowledge from the bachelor

IV Energy Economics		ECTS	Term	
*	BUS310	Strategy Implementation (mandatory for all)	5	Aug
	ECN280	Energy Economics ¹⁾ (lessons in Norwegian)	10	V
*	ECN302	Mathematics for Economists	5	H
*	ECN311	Microeconomics	10	H
*	ECN312	Industrial Organization	5	H
*	ECN380	Energy Market and Regulations	10	H
*	ECN301	Econometric Methods	10	H
	ECN374	Dynamic Optimisation	5	Jan
	ECN202	Introduction to Econometrics ¹⁾ or (ECN201, 10 ECTS)	5	H
	ECN372	Climate and Environmental Economics	10	H
	M30-IØR	Master Thesis (mandatory for all)	30	V

1) For students who miss this knowledge from the bachelor

3.2.2 MASTER OF SCIENCE IN ECONOMICS

120 ECTS/credits must be completed, 40 ECTS/credits with mandatory courses on the 300 level: Mathematics, microeconomics, macroeconomics, and econometrics. There are two main specializations (at least 30 ECTS on 300 level); Environment and Resource Economics and Development Economics. The students can also choose business economics for a broader preparation for the labor market.

Master ECON: Mandatory

Year 1	Code	Name	ECTS	Term
	ECN302	Mathematics for Economists	5	Aug
	ECN311	Microeconomics	10	F
	ECN301	Econometric Methods (alt: ECN201 ¹⁾)	10	F
	ECN312	Industrial Organisation (can be and taken the second year if interested in ECN270)	5	F
	ECN320	Macroeconomics III	10	S
	300-level	Free to choose subjects in economics	20	S
			60	

Year 2	Code	Name	ECTS	Term
	300-level	Free to choose subjects in economics	10	F
		Free to choose	20	F
	M30-IØR	Master Thesis with seminar	30	Jan/S
			60	

Profiles:

Master ECON: Development Economics

Year 1	Code	Name	ECTS	Term
	ECN302	Mathematics for Economists	5	Aug
	ECN311	Microeconomics	10	F
	ECN301	Econometric Methods (alt: ECN201 ¹⁾)	10	F
	ECN312	Industrial Organisation (can be taken the 2 nd year)	5	F
	ECN270	Resource and Environmental Economics	5	F
	ECN351/ ECN355	Research for Development	5 (10)	Jan+S+Jun
	ECN320	Macroeconomics III	10	S
	ECN353	Development Economics, micro	5	S
	ECN358	Issues in Development Economics	5	S
			Ca 60	

Year 2	Code	Name	ECTS	Term
	ECN331	International Economics and Finance	5	Aug
	ECN330	Economic Integration and Trade Liberal.	10	F
	ECN303	Impact Assessment Methods	5	F
	ECN350	Development Economics	10	F
	M30-IØR	Master Thesis with seminar	30	S
			60	

Master ECON: Environment and Resource Economics

Year 1	Code	Name	ECTS	Term
	ECN302	Mathematics for Economists	5	Aug
	ECN311	Microeconomics	10	F
	ECN301	Econometric Methods (alt: ECN201 ¹)	10	F
	ECN312	Industrial Organisation (alt ECN270)	5	F
	ECN374	Dynamic Optimisation	5	Jan
	ECN320	Macroeconomics III	10	S
	ECN373	Environmental Accounting and Management (or: ECN271 ¹) for those who don't have the course in the bachelor)	5 (10)	S
	ECN371	Environmental Economics	10	S
			60	

Year 2

	ECN331	International Economics and Finance	5	Aug
	ECN372	Climate and Environmental Economics	10	F
	ECN330	Economic Integration and Trade	10	F
	ECN380	Energy Economics II	10	F
	M30-IØR	Master Thesis with seminar	30	Jan/S
			60-65	

For this plan the students need to have the course BUS220 Finance and Investment in the bachelor degree

Master ECON: Economics and Business

Year 1	Code	Name	ECTS	Term
	ECN305	Mathematics for Economists	5	Aug
	ECN311	Microeconomics	10	F
	ECN301	Econometric Methods (alt: ECN201 ¹⁾)	10	F
	ECN312	Industrial Organization	5	F
	ECN320	Macroeconomics III	10	S
	BUS231	Managerial Science, Principles	10	S
	BUS322	Investment Analysis and Financial Risk Management	10	S
	BUS321	Empirical Analyses of Financial and Commodity Markets, Theory	5	Jun
			65	

Year 2

	BUS320	Empirical Analyses of Financial and Commodity Markets II (term paper)	5	Aug
	ECN330	Economic Integration and Trade Liberalization	10	F
	BUS370	Economic Development and Entrepreneurship	10	F
	M30-IØR	Master Thesis with seminar	30	Jan/S
			55	

¹⁾ For students who miss this knowledge from the bachelor degree. This students can take ECN301 the second year.

3.2.3 MASTER IN ENTREPRENEURSHIP AND INNOVATION

The program will begin with an introduction in innovation and management accounting. Later the focus will be turned to the development of business plans and students will be working on actual projects or ideas from researchers, private or public businesses. A stay in “Gründerskolen” is a mandatory part of the program.

Master EI: Mandatory

Year 1	Code	Name	ECTS	Term
	INN210	Innovation	5	Aug
	INN200	Management Accounting	10	F
	INN220	Introduction to Entrepreneurship	15	Aug+F+S
	INN310	Intellectual Property and Rights	5	Jan
		School of Entrepreneurship/ Gründerskolen	25	S

60

Year 2

	BUS310	Strategy Implementation	5	Aug
	BUS370	Economic Development and Entrepreneurship	10	F
	AOS240	Research in Social Science	5	F
		Free to choose courses at other Departments, or (individual course work)	10	F
	M30-IØR	Master Thesis	30	Jan+S

60

Individual course work can be carried out instead of taking courses. The student need to have an agreement with the teacher/adviser which describe the subject, the number of ECTS and the deadline of submitting the term paper. The deadline for the agreement is the 15th of September og 15th of February.

The students have to sign up for exam in the individual course work. The M- for the master level and the B for the bachelor level. The number tells how mange ECTS the work require. FRIE indicates the individual work.

3.2.4 MASTER OF SCIENCE IN DEVELOPMENT AND NATURAL RESOURCE ECONOMICS

This master's program is conducted in English and has a strong international profile. It is a Master program within Economics, with a special emphasis on issues from the developing world. The program is policy-oriented and important issues in the program are rural development, management of renewable resources and academic research.

Students on this program will get the opportunity to take one semester at a university in Africa. However, this is provided that the necessary agreements between UMB and the universities in Africa are successfully finalized. This program also includes a mandatory field-work in a developing country during the summer between the first and second year.

This Master of Science program equals two year's full time study, awarding a total of 120 ECTS. The last part of the program is a 30 ECTS Master's Thesis, which is an individual academic work, based on the data collected in the field work. A minimum of 45 ECTS of the course work should consist of subjects on the 300-code level.

Master DNRE: Mandatory courses

			ECTS	
Year 1	Code	Name	Points	Term
	ECN302	Mathematics for Economists	5	Aug
	ECN301	Econometric Methods	10	Fall
	ECN311	Microeconomics	10	Fall
	ECN270	Resource and Environmental Economics	5	Fall
	ECN351/ ECN355	Research in Development Economics/ or Research in Development Economics + field work	5 10	Jan Jan+Jun
	BUS231	Management Science – Principles	10	Spring
	ECN353	Development Economics - Micro	5	Spring
	ECN320	Macroeconomics III	10	Spring
	ECN358	Issues in Development Economics	5	Spring
			60 - 65	
Year 2				
	ECN350	Development and Environment Economics	10	Fall
	ECN303	Impact Assessment Methods	5	Fall
		Free to choose	15	Fall
	M30-IØR	Master Thesis including seminar	30	Jan/ Spring
			60	

Masterprofil: Option 1

		ECTS	
Year 1	Code	Name	Points Term
	ECN302	Mathematics for Economists	5 Aug
	ECN301	Econometric Methods	10 Fall
	ECN311	Microeconomics	10 Fall
	ECN270	Resource and Environmental Economics	5 Fall
	ECN351/ ECN355	Research in Development Economics/ or Research in Development Economics + field work	5 10 Jan Jan+Jun
	BUS231	Management Science – Principles	10 Spring
	ECN353	Development Economics - Micro	5 Spring
	ECN320	Macroeconomics III	10 Spring
	ECN271	Project Evaluation and Environmental Valuation	10 Spring

60-70

Year 2

	ECN331	International Economics and Finance	5 Aug
	ECN330	Economic Integration and Trade	10 Fall
	ECN303	Impact Assessment Methods	5 Fall
	ECN350	Development and Environment Economics	10 Fall
		Seminar	Jan
	M30-IØR	Master Thesis	30 Jan/ Spring

60

Masterprofil: Option 2

		ECTS	
Year 1	Code	Name	Points Term
	ECN302	Mathematics for Economists	5 Aug
	ECN301	Econometric Methods	10 Fall
	ECN311	Microeconomics	10 Fall
	ECN270	Resource and Environmental Economics	5 Fall
	ECN351/ ECN355	Research in Development Economics/ or Research in Development Economics + field work	5 10 Jan Jan+Jun
	BUS231	Management Science – Principles	10 Spring
	ECN353	Development Economics - Micro	5 Spring
	ECN320	Macroeconomics III	10 Spring
	ECN373	Environmental Accounting and Management	5 Spring

65

Year 2

	ECN350	Development and Environment Economics	10 Fall
	ECN303	Impact Assessment Methods	5 Fall
	ECN312	Industrial Organization	5 Fall
	ECN330	Economics Integration and Trade	10 Fall
		Seminar	Jan
	M30-IØR	Master Thesis	30 Jan/ Spring

60

3.2.5 MASTER THESIS

The master thesis gives the finish of the study and an important part of the specialization. It is a minor research task. In the last semester the students shall submit a 30 ECTS thesis and show that they are able to this alone.

After submitting the thesis, there will be arranged a defence for the thesis with questions from an external sensor.

MSc and doctoral students are integrated in the research process. IØR emphasize interaction among researchers, including an active seminar series.

The Department publish a catalogue with projects/problems for master thesis connected to many of the research fields, examples:

- Agricultural economics and policy
- Aquaculture and fisheries economics
- Consumer economics
- Development economics
- Economics and business administration
- Environmental and natural resource economics
- Entrepreneurship and rural development
- Investment and finance
- International trade
- Marketing
- Organization and management

The students have to make an agreement with an advisor a year before submitting the thesis.

At the start of the last semester there will be a seminar with methodological approaches with emphasis on data analysis, research design and use of literature.

4 DESCRIPTIONS OF COURSES

Please take note of the teaching language!

AOS120 Marketing

Markedsføring

ECTS: 5 **Language:** Norwegian

Staff/institute: Frode Alfnes/ IØR

Start term: Spring parallel

Terms: Spring parallel

Type of course: 30 hours.

Contents: The course aims to give the students knowledge of the principles underlying modern marketing. Such insight is important for several reasons: As consumers it is useful to understand how businesses and public authorities compete for our understanding of reality in order to influence our purchase decisions. As cultural individuals it is interesting to have knowledge about how our consumer choices are assigned symbolic values and thereby associate us with different types of lifestyles. In the role as professional workers it is important to see how the success of businesses or organizations depends on our ability to integrate the thoughts and behaviour of the consumer into our work. The course has a consumer-behaviour perspective, which means that marketing must be based on an understanding of how consumers think and act.

Learning outcomes: Basic principles of modern marketing.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Written examination (3 hours): 60% of the grade. Written case work: 40% of the grade. Both the written examination and the case work must be passed to get a passing grade in the course. A re-sit examination for those passing the case work but failing the written examination will be given the following semester. The grade for the written case work is only valid the semester the paper is written.

Curriculum: Textbook: 'Markedsføringsledelse', Philip Kotler. Gyldendal 2003, or the latest edition of 'Marketing Management', Philip Kotler et al. Lecture notes. Additional reading material may be distributed. The literature list can be changed before the first lecture.

AOS130 Introduction to Organisation Theory

Innføring i organisasjonsteori

ECTS: 5 **Language:** Norwegian

Staff/institute: Gro Ladegård/ IØR

Start term: August block

Terms: August block

Mandatory activities: Assignments. Participation in study groups. Students who arrive later than the second day of the course will be dismissed.

Type of course: Seminars from 09:00 - 16:00 during 10 days.

Contents: In the first part of the course, emphasis is placed on understanding different perspectives that are used in the study of organisations. The remaining academic content of the course is centred around the most central ideas of organisation theory: the surroundings, strategies, aims, technology, structure and culture of organisations. The composition of the course will to a large extent follow the contents of the textbook, combined with practical cases.

Learning outcomes: The primary learning goal is for students to gain knowledge on how organisations work. The specific learning goals are threefold: 1) Knowledge about the most central theories that are used when studying organisations and how these can be used to analyse practical problems and to help them navigate in organisations they come into contact with. 2) Practice analytical thinking and train the systematic investigation of organisations. 3) Develop critical attitudes towards organisational problems, especially the way these are portrayed in the media.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final examination counts 100%.

Examination aids: No calculator, no other examination aids

Curriculum: The lectures are considered to be part of the curriculum. Textbook: Jakobsen, Dag Ingvar og Jan Thorsvik:

Hvordan organisasjoner fungerer. Bergen: Fagbokforlaget. (3.ed.).

AOS210 Political Structures and Processes

Politiske strukturer og prosesser

ECTS: 10 **Language:** Norwegian

Staff/institute: Frode Gundersen/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Type of course: 2 hours per week.

Contents: The course AOS210 is built up of a) Analytical perspectives on public political/administrative institutions, b) reviewing the central political administrative institutions in Norway with special emphasis on the relationship between politics and administration, connections between subject and politics, sector and coordination, c) reviewing the administrative political institutions at regional and municipal level in Norway with special emphasis on dimensions such as the relationship between politics and administration, connections between subjects and politics, sector and coordination, d) relations between central, regional and municipal levels. Development trends in municipalities, county government and administration, e) towards the end of the course, the growth of and experiences with new governing models at central, regional and municipal levels will be covered.

Learning outcomes: The course aims to: 1) give a survey of theoretical-analytical perspectives on political institutions, 2) provide knowledge of the structure of our political/administrative apparatus at central, regional and local levels and

3) provide knowledge of how the political system works, with special emphasis on relations between central, regional and municipal levels. The course aims to give students knowledge of and an understanding of analytical perspectives on public political/administrative institutions, decision theories, subject and politics, sector and coordination, relations between central, regional and municipal levels. Development trends of municipal and county-level administration. This course gives students a viewpoint when developing their understanding of society, especially the administrative political institutions in society. The skills gained in the course can, among other things, be used if working in public management and planning. The skills include being able to read scientific articles on public politics. It is part of the subject called political science to work with different approaches and for students to learn to give reasons for their choices and make these clear to others as one does when practicing the subject. This also applies to moral questions and it is therefore that ethics is part of the subject political science.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Semester assignment (60%) and written examination (40%). Students have to pass both to achieve a passing grade in the course.

Curriculum: Bukve, O. og A. Offerdal (red.) (2002). Den nye kommunen. Kommunal organisering i endring. Oslo:

Det Norske Samlaget. Kap. 1, 3, 4, 5, 6, 7, 8, 10, 11, 12. (209pp.) Christensen, T., M. Egeberg, H. O. Larsen, P. Lægreid

og P. G. Roness (2002). Forvaltning og politikk. Oslo: Universitetsforlaget. Kap. 1-11. (200pp.) Nordby, Trond: I politikens sentrum. Variasjoner i Stortingets makt 1814-2000, 2000. Oslo: Universitetsforlaget. Kap. 1, 2, 3, 5, 6, 7, 8,

10. (298pp.) NOU 2003: 19. Makt og demokrati. Makt- og demokratiutredningens sluttrapport. Kap. 2-9 og 13-14. Kan hentes fra

<http://www.odin.dep.no/aad/norsk/publ/utredninger/NOU/002001-020015/index-dok000-b-n-a.html>. (64pp.)

Nordby, T. (1999). Samvirket mellom organisasjoner og stat: Norge. Makt- og demokratiutredningen, rapportserien nr. 4. (35pp.) Kompendiet: Kjellberg, Francesco og Reitan, Marit (1995): Studiet av offentlig politikk. En innføring, Oslo: Tano. Kap. 1: Offentlig politikk som studieobjekt. Kap. 3 Offentlig politikk og interesseformidling. Tranøy, Bent S. og Øyvind Østerud (red.): Den fragmenterte staten. Reformen, makt og styring, 2001. Oslo: Gyldendal Akademisk.

Kap. 1 Grønlie, Tore: Varige spenninger i styrings- og forvaltningspolitikken. Kap. 2 Christensen, Tom og Lægreid, Per (2001): #New Public Management i norsk statsforvaltning. Kap 9. Skjeie, Hege: #Inne i beslutningsmaskinen#.

Regjeringen som kollegium#, 2001. Kap. 11. Andersen, Svein S.: Politisk styring eller markedstilpassing av olje-Norge? Kap. 15.

Reitan, Marit: Den nye miljøpolitikken og de etablerte institusjonene. Østerud, Øyvind: Statsvitenskap.

Innføring i politisk analyse, 2002. Oslo: Universitetsforlaget. Kap. 6. Statsmaktens organisering Kap. 7. \Byråkrati og korporatisme.# Baldersheim, Harald og Rose, Lawrence (red.): Det kommunale laboratorium. Teoretiske perspektiver

Emnebeskrivelser –på lokal politikk og organisering, 2002. Bergen: Fagbokforlaget.
 Kap. 2. Øgård, Morten: New Public Management - markedet som redningsplanke?
 Sahlin-Andersson, K. (2001): 'National, International and Transnational Construction of
 New Public Management', i T. Christensen og P. Lægreid (red.): New Public
 Management. The Transformation of Ideas and Practice. Aldershot: Ashgate . 30pp.
 Trondal, Jarle og Veggeland, Frode (1999): 'Norske myndigheter og EØS:
 Mellom utenrikspolitikk og innenrikspolitikk', i Sosiologi i dag 3. pp. 57-78. 22pp.

AOS230 The Psychology of Organisation and Leadership

Organisasjons- og ledelsespsykologi

ECTS: 5 **Language:** Norwegian

Staff/institute: Gro Ladegård/ IØR

Teachers: External teacher.

Start term: August block

Terms: August block

Mandatory activities:

Prerequisites: AOS130.

Type of course: Organised lecturing time: ca. 40 hours in total over two weeks. The lecturing time will partly be group work on problem solving.

Contents: Topics: Perceptions/cognition; Learning; Attitudes and Leadership; Group psychology; Satisfaction and turnover.

Learning outcomes: The ability to comprehend the most significant theories within the field of work psychology, and the relationship between these. The course will specifically focus on challenges in the knowledge economy. The ability to apply theories to practical problems is stressed, as well as the ability to draw on interdisciplinary knowledge.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, 3.5 hours, counts 100%.

Examination aids: No calculator, no other examination aids

Curriculum: Given at course start.

AOS233 Strategic Processes and Decision-Making

Strategiske prosesser og beslutningstaking

ECTS: 10 **Language:** English

Staff/institute: Carl Brønn/ IØR

Start term: Spring parallel

Terms: Spring parallel

The course is offered: Odd years

Prerequisites: General knowledge of economics and organisation theory concepts.

Credit reduction: AOS232: 10 credits.

Type of course: Approx. 50 hours.

Contents: Definition of strategy and a historical perspective. Strategy and issues in development studies – the case of unintended consequences. Cognitive influences on perception and issue definition. Stakeholder analysis. Modelling dynamic resource

systems and the strategic architecture. Alternate futures, scenarios and flight simulators.

Implementation - politics and negotiations.

Learning outcomes: The objectives in this course are threefold. First, we review the impact of the cognitive dimension on strategic diagnosis and decision-making. We investigate how this dimension influences the activities that affect the organisation in developing strategy. The second objective is to provide a conceptual framework for understanding complex organisational structures as systems. This involves a review of different perspectives on strategic decisionmaking and the factors that influence the process. The two theoretical platforms that support this second objective are information feedback theory and behavioural decision theory. These theories provide insights into the different possible perceptions of the strategic development problem and serve as valuable learning and communication tools. These views are combined into the unified approach called systems thinking. This perspective gives the decision maker a powerful method for investigating and communicating the long-term consequences of strategic planning activities.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: The assessment is based on a semester assignment, case analyses and presentations. Semester assignment: 60 %. Cases and presentations: 40 %.

Curriculum: Selected articles.

AOS237 Business Strategy

Foretaksstrategi

ECTS: 10 **Language:** Norwegian

Staff/institute: Kjell Gunnar Hoff/ IØR

Teachers: Rolf Qvenild.

Start term: Autumn parallel

Terms: Autumn parallel

The course is offered: Other -

Prerequisites: AOS120, AOS130, BUS100.

Contents: Strategies and the strategic planning processes linked to changes in the environment and competitive position, * internal analyses # different methods to evaluate the strengths and weaknesses of a company, including sustainable competitive advantage and core competencies, * external analyses # different methods for analyzing how changes in the environment might influence the development of the company and the chosen strategies, * functional strategies # which of its functions (marketing, product development, etc.) should a company pursue to maintain its competitive advantage,

* company strategies # which generic strategy should the company choose, * corporate and international strategies # diversification, acquisitions and establishing high tech international value chains, with examples from the automotive and oil and gas industries, * strategic change # different management styles for different types of strategic change, * strategy in action # choosing the appropriate organization, processes

and management style for having management control with the implementation process and to achieve the financial targets. A company visit is also part of the course.

Learning outcomes: The course objective is to enable the students to actively participate in developing, discussing, and recommending suitable strategies for a given company, including choosing suitable methods and organizational solutions when implementing the strategies.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade. **Grading:** A-F

Assessment methods: Written semester assignment based on group work counts 20 %, individual mid-semester examination (2 hours) covering the book's parts 1, 2 and 3, counts 30%. Home examination (48 hours) based on groups counts 50 %.

Curriculum: Will be provided at the start of the course.

AOS240 Research in Social Sciences

Samfunnsvitenskapelig metode

ECTS: 5 **Language:** Norwegian

Staff/institute: Frode Alfnes/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites:

Type of course: 2 hours per week with classroom lectures and 2 hours about every second week with classroom exercises.

Contents: The course aims to give the students insight into how one can plan and conduct empirical analyses of questions in the social sciences. The course aims to enable students to conduct investigations that can endure a critical evaluation based on the most common quality criteria that are used for such investigations. The course is organised

around the two types of empirical design that are most referred to - the survey and the experiment. Emphasis will be placed on the students' understanding of the possibilities and limitations of these two designs and how the concrete question that is analysed influences them, and which of these two designs should be chosen and how the shaping of the chosen design determines what conclusions can be drawn on the basis of the conducted investigation. Inside this framework, the lecturers will more specifically deal with how the information brought forward by the investigation may be analysed and thereby answer some of the central questions of the investigation.

Learning outcomes: To plan and conduct social science and marketing studies.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Written examination, 3 hours (60%). Written assignment (40%). The examination and the assignment must be passed in the same semester. If you fail one of them, you fail the course. A re-sit examination for those passing the written assignment, but not the examination will be given the following semester. The

grade for the written assignment is only valid the year it was submitted. Students who wants to take the course a second time have to hand in a new assignment with a new topic.

Curriculum: The literature will be updated before the start of course.

AOS310 Environmental Politics and Management

Miljøpolitikk og forvaltning

ECTS: 10 **Language:** Norwegian

Staff/institute: Frode Gundersen/ IØR

Start term: Spring parallel

Terms: Spring parallel June block

Prerequisites: Fundamental knowledge about political structures and processes, AOS210.

Type of course: 2 hours per week.

Contents: 1) General information on environmental problems and policies, central theories on environmental policies. The contents of the term environmental policy, the link between environmental problems, management structure and public control. 2) The development of various viewpoints in the modern debate on environmental policies. 3) Ideological traditions in Norwegian nature and environmental protection. 4) The development of voluntary nature protection organisations and environment protection organisations in the Scandinavian countries. 5) Environmental policies and institutional structure in the Scandinavian countries. 6) The shaping of policies and institutional structure. 7) The implementation of environmental policies.

Implementation structure, tools.

Learning outcomes: The course has two aims. Firstly, to present and analyse some central elements of and different positions on political theory that have been developed in connection with environmental problems and the environmental movement. These are to be related to older and more established forms of political thinking. Relevant ecopolitical

challenges are to be discussed in light of various theoretical approaches. Secondly, the course aims to give an overview and an analysis of environmental protection policies and environmental protection management as a public policy field in the Scandinavian countries. Central questions will be linked to the growth of environmental protection policies, its participants, management and implementation. This will be covered: The course aims to give students knowledge and an understanding of: a) the central elements of and different views on political theory that have been developed in connection with the environmental problems and the environmental movement, b) environment protection policies and environmental protection management as an area of public politics in the Scandinavian countries. This course gives students a viewpoint when it comes to developing an understanding of the environmental problems and how these are

presented and treated, especially by the administrative political institutions in society. Skills in the course may, among other things, be used when writing a Master's or a Ph.D thesis. In addition, the skills will make students capable of working with and writing reports on environmental management and environmental policies. It is a part

of the subject of political science to work with different approaches and for the students to learn to give reasons for the choices made when practising the subject and explain these reasons clearly to others. Therefore, moral questions and ethics are part of the course and of the subject of political science. This course will also be arranged so that it is complementary to the course in environmental philosophy, and students will be encouraged to take both courses.

Methods of examination: Final **Grading:** A-F

Assessment methods: Semester assignment.

Curriculum: Beck, Ulrick (2001) Risiko og frihet. Ch. 1 and 4. Christiansen (1996) (ed) Governing the Environment: Politics, Policy and Organization in the Nordic Countries, Nord 1996:5

Eckersley, Robin (1992) Environmentalism and political theory. Towards an ecocentric approach.

Jansen, Alf Inge (1989) Makt og miljø. Universitetsforlaget, Ch. 1.2.3.4.7.

AOS331 Leadership and HRM

Ledelse og HRM

ECTS: 10 **Language:** Norwegian

Staff/institute: Gro Ladegård/ IØR

Teachers:

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: The students are organised into groups, and each group will hand in a semester assignment. The semester assignment is assessed as passed/failed. The semester assignment must be approved to be eligible for the final examination.

Prerequisites: Introduction to Organisation Theory (AOS130). The Psychology of Organisation and Leadership AOS230). Strategic Management and Organisation Design (AOS232 or AOS237). Research Methods in the Social Sciences (AOS240).

Type of course: One 4-hour seminar each week. In addition, time for group work.

Contents: Topics: Power and trust - the basis for leadership. Human resource management, Leadership development. The course starts with a discussion of the general basis for executive leadership in organisations. Based on this discussion, we introduce theories of leadership under different contingencies, particularly focusing on leader behaviours. We also present recent research on human resource management, and discuss how this field is related to general theories of leadership.

Learning outcomes: The aim of the course is to provide a deeper insight into studies of modern organisations and leadership, as well as management of human resources. It gives a broad theoretical overview of the field, with a specific purpose of applying theory as a tool for analysis and understanding. Further, a learning objective is to train the students

in defining, analysing and discussing central problems related to the management and leadership in organisations.

Methods of examination: Continous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be

passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: A home examination of 48 hours.

Curriculum: Yukl, Gary (2005): *Leadership in Organizations* (7.ed.). Upper Saddle River, NJ: Prentice-Hall.

Kuvaas, Bård (red.): *Lønnsomhet gjennom menneskelige ressurser*. Bergen: Fagbokforlaget. In addition scientific articles.

AOS332 Strategy Dynamics

Dynamisk strategi

Credits: 10 **Language:** English

Staff/institute: Carl Brønn/ IØR

Start Term: Autumn parallel

Perioder: Autumn parallel

Mandatory activities: Three assignments during the course of the term

Prerequisites: Bachelor in business administration

Type of course: The course will be organised as 4 hour weekly sessions over 13 weeks

Teaching methods: Each weekly session will be organised as a combination of lectures, student presentations, and group assignments

Contents: Fundamental principles of dynamic systems; mapping of stock-and-flow structures; connecting feedback to stock and flow structures; the dynamic resource perspective on strategy, interactions between operations, strategy, and human resource policy, managing instabilities in supply chains; applications – scenarios and management flight simulators

Learning outcomes: The course gives an introduction to system dynamics as a language and a methodology for analyzing and understanding organizations' business policies and strategies. This is accomplished by presenting the effects of the cognitive dimension on strategic business activities. This leads to the development of a conceptual structure for understanding organizations as complex systems. This perspective gives strategic decision makers a powerful methodology for both analyzing and communicating the long-term consequences of their strategic planning activities.

Methods of examination: Continuous assessment. **Grading:** A-F

Assessment methods: 3 deliverables (50% total) and a final written examination (50%).

Examination aides: No calculator, no other examination aids

AOS335 Organisation and Management

Organisasjon og styring

ECTS: 10 **Language:** Norwegian

Staff/institute: Bernt Aarset/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: 3 essays.

Type of course: The course will be organised as 4 hour weekly sessions over 13 weeks.

Contents: In this course the foundation is theories and perspectives on the relationship between the individual actor and the firm, organisations and society, but with its main focus on business organisation. The course will provide knowledge in modern organisations, the management of such organisations, and in the field of management and organisation in general. The course is based on theory as means to analysis and understanding. Further, the course will provide training in the definition, analysis, and discussion of core issues related to management of organisations. The development of critical analytical capabilities in the approach to the study of practical problem issues within commerce and public management questions are emphasised. Core issues will also be change, strategy, management of organisations, firm responsibilities, challenges associated with globalisation, and new management principles (New Public Management).

Learning outcomes: The main goal is to achieve a theory based insight in modern organisations, within commerce as well as in public management, and the management principles of these, in relation to internal and external actors and stakeholders. Specific goals are: 1. Be familiar with the core theories for management of organisations. 2. Demonstrate analytical capabilities and the use of theories in the processes of questions related to management. 3. Express critical thought and original ideas on issues related to management.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade. **Grading:** A-F

Assessment methods: Forty eight hour home exam. Three obligatory tasks must be accepted before the start of the home exam.

Curriculum: Tim Hannagan (2008): Management. Concepts & Practices. 5th ed. Essex: Pearson Education Limited.

AOS340 Qualitative Methods

Kvalitativ metode

ECTS: 5 **Language:** Norwegian

Staff/institute: Bernt Aarset/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: AOS240 - Research in Social Sciences or equivalent.

Type of course: One 2-hour seminar/lecture each week.

Contents: The course will provide the student with an introduction to qualitative methods. The course will present all steps of the qualitative research process. Development of research question, design of research project (case studies and other designs), choice of method and methodology, analysis of data and generalisation based on qualitative data are core issues in the course. Methods such as depth interview, participating observation, document analysis, conversation analysis,

discourse analysis will be presented. The course will provide increased understanding of research, knowledge and knowledge development. Choice of method will be based on research question, theoretical perspectives, analysis, and the direction of the project.

Learning outcomes: This course will provide the students with the necessary tools to conduct the masters thesis as a qualitative research project. A basic introduction to qualitative methods, principles for research design, for qualitative data analysis, and for generalisation based on qualitative data are provided.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Two obligatory tasks during the semester and one individual semester assignment.

Curriculum: Askheim & Grenness (2008): Kvalitative metoder for markedsføring og organisasjonsfag. Universitetsforlaget. Selected articles will be handed out.

BUS100 Cost Accounting, fundamentals

Grunnleggende foretaksøkonomi

ECTS: 5 **Language:** Norwegian

Staff/institute: Svein Kolstad Hansen/ IØR

Teachers: Svein Kolstad Hansen and others

Start term:

Terms: Autumn parallel Spring parallel

The course is offered: Other - Given twice a year - spring and autumn.

Mandatory activities: One compulsory assignment.

Type of course: Lectures: 2 hours per week. Problem solving exercises: 2 hours per week.

Contents: The company and its surroundings. Cost and cost behaviour, Markets and optimisation, Product costing, Costvolume-profit models, The optimal use of scarce resources, Capital budgeting.

Learning outcomes: The course is a foundation course in Cost Accounting.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: One written examination of 60 minutes during the course and one final examination. The first examination counts 25%, while the final examination of 180 minutes counts 75%. The final grade is based on a weighted average. There will be no repeat examinations for students with an average grade below passing, because the course is given twice a year. Mid term test and final exam must be taken in the same term.

Curriculum: Hoff, Kjell Gunnar: Grunnleggende bedriftsøkonomisk analyse, Universitetsforlaget 2009. Hoff,

Kjell Gunnar og Hoff, Jan-Erik: Oppgaver og løsningsforslag til Grunnleggende bedriftsøkonomisk analyse, Universitetsforlaget 2009.

BUS110 Accounting - Financial Reporting

Eksternregnskap

ECTS: 10 **Language:** Norwegian

Staff/institute: Svein Kolstad Hansen/ IØR

Teachers: Svein Kolstad Hansen and Nils Sanne.

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: One compulsory assignment.

Credit reduction: The economic students will not obtain ECTS for BUS200

Type of course: 4 - 5 hours of lectures and 2 hours of exercises per week.

Contents: The main elements and principles of financial accounting. Theory and terminology, rules and regulations, the most common accounting transactions, The closing, measurement and valuation problems, year end closing, taxation and accounting, financial statement analysis, semester assignment.

Learning outcomes: To provide students with a basic understanding of financial accounting and financial statement analysis.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: 3 hour written examination. The written examination is based on the student assignment. The students solution of the semester assignment is not to be handed in, but students must bring their solutions to the examination as many of the examination questions will be based on the assignment and the solution.

Examination aids:

Curriculum: Voldsund, Vågsether, Hoff, Hansen: Grunnleggende regnskap, Universitetsforlaget 2007. Hansen, Hoff,

Voldsund: Analyse av finansregnskapet, Universitetsforlaget 2007.

BUS112 Accounting and Computing

Elektronisk regnskapsføring

ECTS: 5 **Language:** Norwegian

Staff/institute: Ole Gjølberg/ IØR

Teachers: Guest lecturers from the software provider (Daldata or Agrodata). Contact person: Inger-Lise Labugt, Department of Economics and Resource Management.

Start term: August block

Terms: August block

The course is offered: Other - Given in years with uneven number.

Prerequisites: Preferably some knowledge of accounting (BUS110).

Credit reduction: BUS111 - 5 credits.

Type of course: Lectures and exercises in auditorium.: ca. 35 hours. Exercises in seminar groups: ca. 20 hours.

Contents: The course is designed so that it can be attended by students without a background in economics. It would nevertheless be beneficial if the students have taken an introductory course in business administration and external accounting. For students who shall continue: the course should be taken before the courses BUS210 and BUS220. The course is based on a specific, practical approach by building up an account plan, posting different receipts, aggregating and conducting a yearly balance.

Learning outcomes: The student shall acquire qualifications in accounting and balance of independent businesses based on the software 'Duett' or 'Agrosat'. The students shall develop, through a practical approach of the software, an understanding of the way accounting is built up, how accounting can be evaluated, tax calculated etc.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final individual examination, using a computer and the software 'Duett' or 'Agrosat'. More information about the examination aids is given at the beginning of the course.

Examination aids: Simple calculator, specified other examination aids

Curriculum: Information about the syllabus is provided at the start of the course.

BUS133 Excel for økonomer

Excel for økonomer

ECTS: 5 **Language:** Norwegian

Staff/institute: Kolbjørn Christoffersen/ IØR

Start term: Spring parallel

Terms: Spring parallel

Prerequisites: BUS100 (can be taken concurrently)

Type of course: Lectures: 2 hours per week. Exercises: 2 hours per week. Total: Approximately 52 hours.

Contents: A detailed plan for the course will be presented in the first lecture.

Learning outcomes: The course shall give the students basic knowledge about and skills in Excel, an important computer program in business. One major goal for the course is to teach the students how to use the Excel program during their studies and in their future jobs.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Hand-ins: 40 % of total grade. Final written exam: 60 % of total grade

Curriculum: Excel textbook/handbook (will be presented at course start).

BUS160 Tax Law for Economists

Skatterett for økonomer

ECTS: 5 **Language:** Norwegian

Staff/institute: Ole Gjølberg/ IØR

Teachers: David Eilertsen, Østfold County Tax Office.

Start term: January block

Terms: January block

Type of course: Ca. 42 hours.

Contents: Income and wealth taxation of SMEs after new tax reform.

Learning outcomes: The course introduces students to basic tax laws for private persons, industry/small and medium sized businesses, with a focus on making economic decisions in light of tax-related issues.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination.

Examination aids: Simple calculator, specified other examination aids

Curriculum: Ole Gjems-Onstad (red.), Skattelovsamlingen 2006-07.

BUS200 Applied Cost Accounting

Anvendt foretaksøkonomi

ECTS: 5 **Language:** Norwegian

Staff/institute: Kjell Gunnar Hoff/ IØR

Teachers: To be decided later

First time the course is offered: SPRING

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Written hand ins,

Prerequisites: BUS100

Credit reduction: BUS110: 3 credits BUS210: 3 credits INN200: 5 credits

Type of course: 2 lecture hours per week.

Learning outcomes: The course objective is for the students to understand financial statements and actively use them to improve the results of companies through goal setting and budgeting, as well be able to analyze decision problems in conjunction with investments and outsourcing options.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: One written examination of 1 hour during the course and one final examination. The first examination counts 25%, while the final examination of 3 hours counts 75%. The final grade is based on a weighted average. Mid term test and final exam must be taken in the same term.

Curriculum: To be decided later.

BUS210 Managerial Accounting and Budgeting

Driftsregnskap og budsjettering

ECTS: 10 **Language:** Norwegian

Staff/institute: Kjell Gunnar Hoff/ IØR

Teachers: Svein Kolstad Hansen, Kjell Gunnar Hoff.

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Compulsory assignments

Prerequisites: The students must have passed BUS100. It is recommended that the students also have knowledge in financial accounting corresponding to BUS110.

Credit reduction: BUS200, 5 ECTS

Type of course: Lectures: 4 hours per week. Exercises: 2 hours per week.

Contents: Normal costing, standard costing, flexible budgets, activity based costing, relevant costs and decision problems, the budgeting process, goal setting, budgeted income statement, cash flow budgets and the budgeted balance sheet. Control and follow up, semester assignment.

Learning outcomes: The course is a second tier cost accounting course based on BUS100. The course aims at qualifying the students to work with and develop the internal accounts of a company and to make in depth analyses and computations for increased profitability. The students shall after the course be able to actively contribute in the financial management and control of companies and projects. One compulsory assignment which is assessed as passed/failed.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: One written examination of 60 minutes during the course and one final examination. The first examination counts 25 %, while the final examination of 3 hours counts 75 %. Mid term test and final exam must be taken in the same term. A repeat examination for students with an average grade below passing will be arranged as a written examination with a duration of 3 hours. This examination counts 100 %.

Curriculum:

Hoff, Kjell Gunnar: Driftsregnskap og budsjettering, Universitetsforlaget 2010.

Hoff, Kjell Gunnar, Hoff, Jan-Erik: Driftsregnskap og budsjettering. Oppgaver og løsningsforslag, Universitetsforlaget 2010.

BUS220 Finance and Investment

Finansiering og investering

ECTS: 10 **Language:** Norwegian

Staff/institute: Atle Guttormsen/ IØR

Teachers: Ole Gjølberg.

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: Basic financial accounting. Basic cost accounting. Introductory mathematics and statistics.

Credit reduction: Students can not be awarded credits for both BUS220 and RØP310.

Type of course: Lectures: 45 hours, plus direct guidance and guidance over the Internet. Review of exercises.

Contents: Basic financial mathematics. Net present value. Risk and return. Basic portfolio theory. Capital asset pricing method (CAPM). Pricing of stocks and bonds. Capital budgeting. Project analysis. Cost of capital. Financial structure and dividend policy. Ethical problems in finance.

Learning outcomes: The course should provide the student with basic knowledge and understanding of modern finance and investment theory. Through the course students should acquire necessary theoretical and methodological skills to analyse finance and investment problems in different practical situations.

Methods of examination: Final Written exam **Grading:** A-F

Examination aids: Simple calculator, no other examination aids

Curriculum: Distributed at the start of the course.

BUS230 Management Science – Principles

Beslutningsanalyse I

ECTS: 10 **Language:** English upon request

Staff/institute: Marie Steen/ IØR

Teachers: Teaching assistants. Guest lecturers.

Start term: Spring parallel

Terms: Spring parallel

Prerequisites: Introductory courses in mathematics, statistics and micro economics.

Credit reduction: BUS231 - 10 credits, BUS232 - 5 credits.

Type of course: Lectures: 2 hours per week. Class hours for exercises: 2 hours per week.

Contents: Introduction to modelling, extensive use of spreadsheets in quantitative decision making models, linear programming, integer programming, network modelling, non-linear modelling, goal programming.

Learning outcomes: To give students a solid basis for using quantitative decision-making methods, where linear programming will be central, in solving economic problems. The main focus of the course will be on formulating and solving different problems. As well, the economic significance of the results will be central. There will be focus on discussing the strengths and weaknesses of the different methods and the fact that models will always be a simplification of reality. The course will to a certain degree focus on issues connected to agriculture and resource management.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination counts 100%.

Examination aids: Simple calculator, no other examination aids

Curriculum: Sections of Hillier, F. S. and M. S. Hillier, 2. ed.: 'Introduction to Management Science', or an equivalent book. Compendium with selected material from other textbooks.

BUS231 Management Science - Principles

Beslutningsanalyse I

ECTS: 10 **Language:** English

Staff/institute: Marie Steen/ IØR

Teachers: Teaching assistants. Guest lecturers.

Start term: Spring parallel

Terms: Spring parallel

Prerequisites: Introductory courses in mathematics, statistics and microeconomic theory.

Credit reduction: BUS230 - 10 credits, BUS232 - 5 credits.

Type of course: 2 hours of lectures and 2 hours in the computer lab per week.

Contents: Introduction to models and modelling, spreadsheet modelling, linear programming, integer programming, network models, non-linear programming, multi-objective programming.

Learning outcomes: The course shall give the students a solid basis for the use of important quantitative decision methods, where linear programming is the most important, to analyse economic and business problems. The main emphasis will be on formulating and solving different types of problems. Furthermore, the economic interpretations of the results are central. The importance of the strengths and weaknesses of the different methods will be discussed, as well as the fact that a model will always be a limited representation of reality. The course will to a certain degree be aimed

towards agriculture and resource management problems.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination counts 100%.

Examination aids: Simple calculator, no other examination aids

Curriculum: Parts of Hillier, F. S. and M. S. Hillier, 2. ed.: 'Introduction to Management Science', or a similar

textbook. A compendium with selected material from other textbooks.

BUS233 Management Information Systems

Informasjonssystemer for virksomhetsledelse

ECTS: 5 **Language:** English

Staff/institute: Kjell Gunnar Hoff/ IØR

Teachers: Joe Valacich is the George and Carolyn Hubman Distinguished Professor of MIS at Washington State University. His teaching interests include systems analysis and design, IT project management, and the management of information systems. He has conducted numerous corporate training and executive development programs for organizations, including: AT&T, Boeing, Dow Chemical, EDS, Exxon, FedEx, General Motors, Microsoft, and Xerox. He previously served on the editorial boards of MIS Quarterly (two terms) and Information Systems Research, and is currently serving on the boards at Decision Science and Small Group Research. His primary research interests include technology-mediated collaboration, human-computer interaction, mobile and emerging technologies, e-business, and distance education. He is a prolific researcher, with more than 60 journal publications in numerous prestigious journals. He is also the co-author of several best-selling textbooks and is a leader in designing national curricula and accreditation standards for the information systems discipline.

Start term: June block

Terms: June block

The course is offered: Even years

Prerequisites: BUS133 - Excel for Business

Contents: We will examine how organizations choose technological innovations and investments, manage and design the information system architecture, enable commerce using Internet technologies as well as gain business intelligence by acquiring, designing, and securing their information systems investments. In addition, the course will examine

how information systems influence numerous ethical issues facing organization and society such as data privacy and ownership as well as how information systems are enabling computer crime and cyber terrorism.

Learning outcomes: Today, information systems are an integral part of all business activities and careers. This course is designed to introduce students to contemporary information systems and demonstrate how these systems are used throughout organizations. Most notably, the course will extensively examine how information systems are fueling globalization making the world smaller and more competitive in virtually every industry and at an ever-increasing pace. We will focus on the key components of information systems; people, software, hardware, data, and telecommunications, and how these components can be integrated and managed to create competitive advantage.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Multiple choice, more details will be available on the ClassFronter.

Curriculum: Leonard Jessup & Joseph S. Valacich: Information Systems Today; why MIS matters, Pearson Prentice Hall International edition.

BUS240 Operations Management

Vareproduksjon og logistikk

ECTS: 10 **Language:** Norwegian

Staff/institute: Kolbjørn Christoffersen/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities:

Prerequisites: STAT100.

Type of course: Lectures: Approximately 50 hours

Contents: Operations management. The strategic role and objectives of operation. Process design and product design. Supply network design. Layout and flow. Process technology. Job design and work organisation. Capacity planning and control. Inventory planning and control. Supply chain planning and control. ERP, Lean operations and Just-In-Time. Project planning and control. Total quality management. Operations improvement. Failure prevention and recovery.

Learning outcomes: The course will provide students with basic knowledge about the operations function in the firm, and with knowledge about design planning, control, and improvement of operation activities and product flow.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination (3 hours).

Examination aids: No calculator, no other examination aids

Curriculum: Slack, Chambers, Johnston: Operations Management, 6th edition. Financial Times/Prentice-Hall. 2010.

BUS271 Business Start-Up

Bedriftsetablering

ECTS: 5 **Language:** Norwegian

Staff/institute: Anders Lunnan/ IØR

Teachers: Svein Kolstad Hansen.

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Submission of project plan.

Credit reduction: BUS171 - 5 credits.

Type of course: Lectures: 24 hours. Introduction to commercialisation at UMB: 4 hours. Entrepreneur presentations: 6 hours. Guidance: 8 hours + individual guidance in groups (ca. 5 hours per group).

Contents: 1. Lectures about the different parts of a business plan. 2. Entrepreneur presentations/ investor presentations/ inspirational presentations are associated with the different lectures. Emphasis on presenting the entrepreneurs in the Ås area and organisations working with entrepreneurship in the Ås area (Start, Venture Cup, Research Department, Bio Park, different departments). 3. Supervision of the semester assignments, a practical business plan.

Learning outcomes: After the course, students will be able to make a business plan. They will know the difference between an idea and an opportunity and the difference between a life style business and a growth business. Students will know what is required for the start-up of a new business, and will have some knowledge about business opportunities that can be found and commercialized at UMB.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Business plan (50 %) and oral presentation (50 %). No re-take examination will be arranged.

Curriculum: Fra ide til ny virksomhet - En håndbok for nye vekstselskaper.

Universitetsforlaget. Additional literature will be distributed. Refer to the course web site. For students continuing on the Gründer (Entrepreneur) School, we recommend that they buy an American book dealing with entrepreneurship. Information about this will be given during the course.

BUS310 Strategy Implementation *Strategiimplementering*

ECTS: 5 **Language:** Norwegian

Staff/institute: Kjell Gunnar Hoff/ IØR

Teachers: Per Aksel Holving

Start term: August block

Terms: August block

Mandatory activities: The lecturers and group work are compulsory activities.

Type of course: An intensive course in the August block. 4-8 hours per day, selected days, 50 hours of structured activities in total. In addition, students group work on cases and games.

Contents: The course focuses on strategic positioning based on industry analyses and strategy implementation. Balanced goal-oriented management as a strategic tool is a central topic in the course. The theory will be supplemented with both written and oral case discussions.

Learning outcomes: The aim of the course is to give students qualifications within strategic positioning and skills to implement strategy in real situations.

Methods of examination: Continous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade. **Grading:** A-F

Assessment methods: 1. Written cases(groups). 2. Final written examination (individual).

Curriculum: K. G. Hoff & P. A. Holving, Balansert målstyring. Balanced scorecard in Norwegian. Universitetsforlaget 2002, plus articles and other material handed out.

BUS312 Advanced Management Accounting *Styring og organisering*

ECTS: 10 **Language:** Norwegian

Staff/institute: Kjell Gunnar Hoff/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Written hand ins.

Prerequisites: BUS310

Contents: The course comprises discussions of organizational design, including responsibility centers, management information systems and various tools and methods for planning, decision making and control, like rolling budgets and the use of forecasts. A computer game (group based) is also a part of the course.

Learning outcomes: The aim of the course is to understand how the right organizational setup can help increase the competitive strength, and how various management systems and tools can contribute to better decisions and control.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Written cases (group based). Final written examination (individually).

Curriculum: Anthony & Govindarajan: Management Control Systems, McGraw-Hill, 12. edition, 2007. Articles.

BUS313 Strategic Cost Management

Strategisk økonomistyring

ECTS: 10 **Language:** Norwegian

Emnebeskrivelser - 189

Staff/institute: Kjell Gunnar Hoff/ IØR

Teachers: Guest lecturers

First time the course is offered: AUTUMN

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Hand ins of written work

Prerequisites: BUS310 and BUS312

Contents: Strategic profitability analysis comprises strategic cost driver analysis, value chain analysis, outsourcing, value creation, product attributes, target costing, quality costs, customer profitability analysis and interorganizational cost management.

Strategic performance management comprises competition analysis, benchmarking, strategic

decomposition, strategy implementation, value based performance management and incentive programs.

Learning outcomes: The aim is to learn how companies can create competitiveness through strategic profitability analyzes and decisions, and how develop tools for measuring strategic achievements.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Written case hand ins (groups). Final exam (individual).

Curriculum: Hoff, Kjell Gunnar: Strategisk økonomistyring, Universitetsforlaget, 2009

BUS314 Corporate Governance

Eierstyring og selskapsledelse

ECTS: 5 **Language:** English upon request

Staff/institute: Ole Gjølberg/ IØR

Teachers:

First time the course is offered: SPRING

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Brief written assignments

Prerequisites: Basic business, primarily financial accounting, cost accounting; finance

Type of course: Approx. 30 hours

Contents: The course will consist of traditional lecturing as well as classes, guest lectures and written assignments.

Learning outcomes: There are numerous laws and regulations related to corporate governance/risk management / internal control in Norwegian companies. The course will deal with important concepts, rules and regulations, and also highlight the roles of different agents such as the board, auditing board, administrative leadership, auditor, risk management and compliance functions.

Methods of examination: Final Written exam **Grading:** A-F

Examination aids: No calculator, no other examination aids

Curriculum: Relevant parts of the laws that regulate corporations, accounting, auditing. Norwegian recommended standard for corporate governance.(www.nues.no) COSO Integrated Framework and COSO Enterprise Risk management. (www.theiia.org)

BUS320 Empirical Analyses of Financial and Commodity Markets II *Empiriske analyser av finans- og varemarkeder II*

ECTS: 5 **Language:** English upon request

Staff/institute: Ole Gjølberg/ IØR

Teachers: Ole Gjølberg, Atle Guttormsen

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: BUS321.

Type of course: Group and individual guidance.

Emnebeskrivelser - 190

Contents: The students are expected to invest a significant amount of individual work in the semester assignment.

Learning outcomes: The aim of the course is to develop the students ability to conduct econometric analyses of financial and commodity markets.

Methods of examination: Final **Grading:** A-F

Assessment methods: Semester assignment.

Curriculum: Relevant articles from the scientific journals.

BUS321 Empirical Analyses of Financial and Commodity Markets – Theory

Empiriske analyser av finans- og varemarkeder - teoridel

ECTS: 5 **Language:** Norwegian

Staff/institute: Ole Gjølberg/ IØR

Teachers: Prof. Frank Asche, Assoc. Prof. Olvar Bergland, Prof. Alan Love.

Start term: June block

Terms: June block

Prerequisites: BUS220 and ECN202 or equivalent.

Credit reduction: 5 credit reduction against the former BUS320 (10 credits).

Type of course: Lectures and organised exercises: approx. 60 hours.

Contents: Different topics will be dealt with in the course. These may be different from year to year, based on current research at the department such as foreign exchange, energy markets (oil, electricity, bioenergy), soft commodities, metals etc. The course includes the following activities: 1. Lectures. 2. Econometric exercises.

Learning outcomes: The aim of the course is to develop the students ability to read empirical analyses based on problem issues and data from the finance and commodity markets and also develop skills that enable the student to conduct his/her own empirical analyses. This aim shall be accomplished through combining economic theory and

hypotheses of these markets with applied econometric methods and data. Central issues, methods and results from the research literature will be presented in the lectures.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, 3.5 hours.

Examination aids: Simple calculator, no other examination aids

Curriculum: Well established text book in econometrics plus hand-outs.

BUS322 Investment Analysis and Financial Risk Management *Investeringsanalyse og finansiell risikostyring*

ECTS: 10 **Language:** Norwegian

Staff/institute: Ole Gjølberg/ IØR

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: 2-3 assignments accepted in order to present oneself for final exam.

Prerequisites: Basic finance, statistics/econometrics, microeconomics.

Type of course: Lectures: 30 hours. Supervised exercises in the computer lab: 30 hours.

Contents: The course covers key topics and problem issues within financial market analysis and financial risk management: - stock pricing, - dividends analysis and risk, portfolio optimization, interest and currency markets – risks and risk management, - bonds pricing and management, - bond management evaluation, - forward markets – futures pricing and tools for risk management, - stock option pricing - investment and risk management through stock options, calculating capital costs.

Learning outcomes: By completing the course, the students will acquire key qualifications within contemporary financial market analysis and finance management. Key concepts include: portfolio optimization, finance management

evaluation, risk analysis of financial markets, stock option pricing and calculation of capital costs.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: 2-day examination. Individual analysis of a case.

Examination aids:

Curriculum: Bodie, Kane & Marcus, Investments. Distributed materials and web sites.

BUS323 Commodity Market Analysis

Varemarkedsanalyse

ECTS: 10 **Language:** Norwegian

Staff/institute: Atle Guttormsen/ IØR

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Compulsory participation in seminars, guest lectures and potentially some ordinary lectures.

Contents: Topics to be included will vary from year to year. Examples are: Trading of commodities, supply and demand, trade conflicts, derivatives, commodity in a portfolio etc. The course will consist of traditional class lectures, guest lectures from the industry (traders, portfolio managers etc.) and the writing of a scientific report presenting one specific commodity. Students will work in groups and should present their report in a seminar.

Learning outcomes: Engelsk: The aim of the course is to develop the students ability to understand international commodity markets. This aim shall be accomplished through combining economic theory with institutional knowledge about these markets. Knowledge about important commodity markets, trade issues, supply and demand and market issues will be presented in the lectures.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Based on scientific report and oral examination.

Curriculum: A reading list will be available at the beginning of the course.

BUS331 Business Management Science: Methods and Techniques

Bedriftsøkonomisk styring: Operasjonsanalytiske metoder og teknikker

ECTS: 10 **Language:** Norwegian

Staff/institute: Marie Steen/ IØR

Teachers: Ole Gjølberg and Carl Brønn (and possibly guest lecturers).

Start term: Spring parallel

Terms: Spring parallel

The course is offered: Other - The course may not be given in some years, depending on the resource and personnel situation.

Mandatory activities:

Prerequisites: Introductory Management Science.

Credit reduction: BUS330: 5 ECTS reduction.

Type of course: Approx. 30 hours of lecture and approx. 30 hours of organized computer lab sessions.

Contents: The course will be given as a 'smörgåsbord' of a number of methods and techniques within Management Science and Management of the firm. The content may vary from year to year, but most of the following subjects will normally be covered: * Project Management, PERT/CPM-models. * Decision analysis. * Waiting lines and queueing theory. * Logistics. * Advanced linear programming. * Non-linear programming. * Transportation and assignment problems. * Markov analysis. * Peak-load pricing.

Learning outcomes: Through this course the students acquire knowledge of important Management Science methods and techniques and skills to apply these in practical management of firms.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: 36 hour individual take-home examination.

Examination aids: No calculator, no other examination aids

Curriculum: F.S. Hillier & M.S. Hillier, Introduction to Management Science plus handouts.

BUS340 Supply Chain Management

Integrert logistikk

ECTS: 5 **Language:** Norwegian

Staff/institute: Kolbjørn Christoffersen/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: BUS240 Operations Management or some other basic logistics course. STAT100 Statistics. BUS230 Management Science

Type of course: Lectures, including exercises: 50 hours.

Contents: The supply chain, strategic fit and drivers. Designing the supply chain network. Planning demand and supply in a supply chain. Planning and managing inventories in a supply chain. Sourcing, transporting, and pricing products. Coordination and technology in the supply chain.

Learning outcomes: The goal of the course is to give students knowledge about the importance of supply chain strategy, knowledge about how to manage supply chains, and to learn important tools and methods for the design and control of supply chains.

Methods of examination: Final Written exam **Grading:** A-F

Examination aids: Simple calculator, no other examination aids

Curriculum: Chopra, Meindl: Supply Chain Management. Prentice-Hall. 4th ed. 2010.

BUS370 Economic Development and Entrepreneurship

Næringsutvikling og entreprenørskap

ECTS: 10 **Language:** Norwegian

Staff/institute: Anders Lunnan/ IØR

Teachers: Eystein Ystad.

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Compulsory excursion. Three sets of assignments. Student presentations.

Prerequisites: ECN262, BUS210, AOS120 or equivalent.

Type of course: Lectures: 28 hours. Assignments for submission: 3 sets. Excursions: 1 day. Case/Article presentations/ assignment presentations by students: 24 hours.

Contents: 1. Entrepreneurship, concepts, learning, theory, research, start-ups, process, business plan 2. Selected topics within entrepreneurship: Finance, growth, social entrepreneurship, global entrepreneurship 3. Economic development and policy, entrepreneurship policy 4. Localisation, regional economics 5. Rural entrepreneurship, niche strategies 6. Entrepreneurship and innovation 7. Innovation strategies 8.

Innovation leadership, implementation 9. Business visits to confront theory with practice 10. Seminar/discussion of articles 11. Assignments

Learning outcomes: Through the study of theory, literature and assignments, insight is given into current problems connected with economic development, entrepreneurship and innovation in Norway today. The students should: - Become familiar with the main challenges within rural development and differences between economic and rural development. - Become familiar with theories and how they can be used in practical analysis within entrepreneurship and innovation. - Become familiar with scientific journals and current research within the subject.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination. Approved assignments

Examination aids: No calculator, no other examination aids

Curriculum: 1. David Deakins and Mark Freel: Entrepreneurship and Small Firms, 4th edition McGraw Hill Companies, 289 pages. The entire book is part of the curriculum. OR: Jeffry A Timmons and Stephen Spinelli: New Venture Creation. 2. Melissa A. Schilling: Strategic Management of Technological Innovation, 2/e. McGraw Hill

Companies. Information about additional literature can be found on the course web site.

ECN110 Introduction to Economics – Micro

Innføring i samfunnsøkonomi - mikro

ECTS: 5 **Language:** Norwegian

Staff/institute: Mette Wik/ IØR

Teachers:

Start term: Autumn parallel

Terms: Autumn parallel

Credit reduction: ECN111.

Type of course: Lectures: 2 hrs per week for 13 weeks. Exercises: 2 hrs per week in smaller groups.

Contents: The course consists of the following subjects: The behaviour of the consumer. The behaviour of the producer. Different markets with emphasis on perfect competition and monopoly. Welfare theory, especially about market success and failure.

Learning outcomes: This is an introductory course in microeconomics. The aim of the course is to give the student i) an overview of the most important concepts and models in microeconomics, (ii) the first training to formulate and solve microeconomic problems and, (iii) good qualifications for further studies in economics.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, 3.5 hours.

Examination aids: Simple calculator, no other examination aids

Curriculum: Frank/Bernanke: Principles of Microeconomics.

ECN120 Introduction to Economics – Macro

Innføring i samfunnsøkonomi - makro

ECTS: 5 **Language:** Norwegian

Staff/institute: Per Halvor Vale/ IØR

Start term: January block

Terms: January block

Prerequisites: ECN110.

Credit reduction: ECN121.

Type of course: Lectures: 30 hours. Group instruction: 20 hours. Subject related discussions with the teaching assistant: 8 hours.

Contents: Part 1: The needs for economic policy. Part 2: Models for economic stabilization. Part 3: Economic growth and development.

Learning outcomes: The student is to gain the knowledge needed to take a medium-level course in macroeconomics. Students should be able to apply simple macroeconomic planning models to questions regarding economic growth and development in the long run, full employment and stabilized economic development in the short run etc., and

understand how the use of fiscal and monetary policy affects the economy in the short and long term. After the course has been completed, students should be familiar with the main issues of welfare theory and market economic theory. The students should i) learn economic concepts and ideas. ii) be trained in logical reasoning. iii) be given some training in the application of mathematics. iv) learn to see the difference between case and person in discussions. v) develop an academic attitude, i.e. that the opinions are based on knowledge and logical thinking.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination (3.5 hours).

Examination aids: Simple calculator, no other examination aids

Curriculum: Will be provided at course start.

ECN140 Economic History

Økonomisk historie

ECTS: 5 **Language:** Norwegian

Emnebeskrivelser - 194

Staff/institute: Ragnar A. Øygaard/ IØR

Teachers: Espen Ekberg

Start term: Spring parallel

Terms: Spring parallel

The course is offered: Even years

Type of course: Lectures: 2 hours per week.

Contents: Familiarity with the main trends in recent Norwegian and international history and elementary economic theory. The student's personal effort consists of the work on the syllabus and a compulsory semester assignment.

Learning outcomes: There are three learning goals in this course: 1. Students are to acquire basic knowledge of the economic development in a historical perspective - mainly in Norway, but examples are also taken from international situations. 2. Students are to be able to link the economic theory with historical problems. 3. Students are to be able to abstract trends from the Norwegian economical development and transfer these to other periods, areas and problems.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: The final written examination counts 100%.

Examination aids: No calculator, specified other examination aids

Curriculum: An overview of the course literature will be handed out at start of the course.

ECN150 Introduction to Development Economics

Innføring i utviklingsøkonomi

ECTS: 5 **Language:** English

Staff/institute: Mette Wik/ IØR

Teachers: Ragnar Øygard, Arild Angelsen and Stein Holden.

Start term: Spring parallel

Terms: Spring parallel

The course is offered: Odd years

Mandatory activities: Writing of one semester assignment. The paper must be approved but is not part of the final course grade.

Prerequisites: ECN110, ECN111, or EDS140.

Type of course: Lectures: 2-4 hours per week.

Contents: Who are the poor? What is growth and development? Why are some countries poor and some rich? Classical and recent theories on growth and development. Poverty and dissimilarities. Population growth. Urbanisation and migration from the countryside. Education and health. Agriculture and developments in the countryside. Environment

and development. Globalisation, poverty and environment.

Learning outcomes: After completing the course, the students should have an overview of: 1) Typical distinctive characteristics of developing countries. 2) Important theories and models for economic development and reduced poverty. 3) Relevant development problems and possible means for solving these.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: 3.5 hour written examination.

Examination aids: No calculator, no other examination aids

Curriculum: Todaro, M. P. and S. C. Smith. Economic Development. 9th Edition. Addison Wesley 2009.

ECN170 Environmental and Resource Economics

Miljø- og ressursøkonomi

ECTS: 5 **Language:** Norwegian

Staff/institute: Ståle Navrud/ IØR

Teachers: Arild Vatn, Arild Angelsen.

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities:

Prerequisites: ECN110 or ECN111 or an equivalent introductory course in economics (with focus on microeconomics).

Credit reduction: ECN270 - 3 credits.

Type of course: 40 hours.

Contents: The course gives an introduction to environmental and resource economics (ERE). This consists of four parts: 1) The general model for the interactions between the economic and the ecological systems. 2) Models for optimal use of resources: i) Renewable/conditionally renewable resources. - Environmental resources - water-, air-, and soil quality (= environmental economics). - Biological resources - fish, forest, wildlife populations (bioeconomic models). - Nonrenewable resources - oil, gas, minerals. 3) Regulatory tools (environmental taxes, tradeable emission permit, etc.) i) Cost-benefit analysis (CBA)/Cost-effectiveness analysis (CEA)/ valuation of environmental goods ii) Green accounting (at the national level - green national accounts, and firm level - triple bottom line: financial, ecological and ethical/ corporate social responsibility). 4) Policies/regulatory measures. i) Decentralised policies (Liability laws, property rights, voluntary action). ii) Command-and-control measures (laws, standards). iii) Incentive-based measures (taxes, subsidies, tradable permits). Criteria for choice of policies. The aim of ERE is socially optimal management of environment and

natural resources maximizing social welfare. Part 1 reviews welfare theory and a general model for interaction between the economic and ecological systems, and how optimal resource management maximises the welfare of society. Part 2 reviews the specific models for socially optimal management of environmental resources, biological resources and non-renewable resources. If we are currently not at the socially optimal of the resource, we can identify alternative actions that may reach this goal. Part 3 reviews analytical tools that can be used to identify measures where social benefits

exceeds social costs, which will bring us closer to the optimal amount of the resource. Part 4 discusses how to implement these profitable actions through the use of various policy measures. Often, specific combinations of the action and policy measure must be analysed, and combinations of measures are also considered. Policy measures are compared based on a list of criteria including their efficiency, fairness, incentives for long-run improvements, and enforceability.

Learning outcomes: The students should be able to explain the basic ideas, theories, methods and models in environmental and resource economics, and be able to conduct

simple applications of this knowledge to current issues in management of environment and natural resources.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, counts as 100 % of the final grade.

Examination aids: No calculator, no other examination aids

Curriculum: - B. C. Field & M. K. Field (2006): Environmental Economics. An Introduction. McGraw-Hill, New York, 4. edition.

- Selected journal articles and book chapters, which can be found in the ECN170 Compendium.

ECN201 Econometrics

Økonometri

ECTS: 10 **Language:** English

Staff/institute: Kyrre Rickertsen/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities:

Prerequisites: Mathematics (MATH100), statistics (STAT100), and microeconomics (ECN210).

Credit reduction: The course partly overlaps with ECN202 and STAT200. There is reduction in credits for ECN202 (5 credits) and STAT200 (5 credits).

Type of course: There are four hours of lectures and/or exercises per week or a total of about 50 hours of structured time. The lectures will take about 60% of the structured time and the exercises about 40% of the structured time.

Contents: The lectures in ECN201 cover two- and multiple-variable regression analysis, OLS, hypothesis testing, violations of OLS assumptions, GLS, dummy independent variables, and the use of the econometric program SHAZAM. In addition, there are problem sets, computer exercises, and a term paper.

Learning outcomes: ECN201 gives an introduction to econometric methods. The focus is on applied and not theoretical econometrics. There are two specific goals. First, the course aims at giving the students practice in reading and understanding empirical works in economics and other social sciences. That includes knowledge of ordinary least squares (OLS) and its assumptions, the consequences of violating these assumptions, and how to detect and correct misspecification in econometric models. Second, the students will do their own econometric analysis, which includes formulating the problem to be investigated, developing an econometric model based on economic theory, obtaining the required data, estimating the econometric model, testing and correcting for misspecification in the estimated model, describing the empirical findings, and discussing their relevance for the investigated problem. The second specific goal also includes learning to use an econometric program such as SHAZAM.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be

passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: 60% of the final grade will be based upon a 3.5 hour written examination. 40% of the final grade will be based on a term paper. Students must have a passing grade (A-E) on both the term paper and the written examination to get a passing grade in this subject.

Curriculum: Demodar N. Gujarati (2002). Basic Econometrics, fourth edition, McGraw-Hill. Introduction, Chapters 1 - 13 (pp. 1 - 559) and Appendix A (pp. 869 - 912) are required readings. The textbook used in the course may be changed.

ECN202 Introduction to Econometrics

Innføring i økonometri

ECTS: 5 **Language:** Norwegian

Staff/institute: Frode Alfnes/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Compulsory assignment.

Prerequisites: Basic knowledge in math, statistics and economics: MATH100, STAT100, ECN210.

Credit reduction: ECN201- 5 credits, STAT200 - 5 credits.

Type of course: 36 hours.

Contents: The topic of the lectures in ECN202 is regression analysis using one or more explanatory variables, the construction of models and the testing of hypothesis. An introduction will be given in the use of Excel for econometric analysis. This topic is further treated in ECN201 (Econometrics), ECN301 (Econometric Methods)

Learning outcomes: ECN202 gives a practical introduction to econometrics with main emphasis on regression analysis. The goal is to teach students to use econometrics to analyse different types of data in Excel. The students learn to construct and estimate models and critically evaluate the results. The main emphasis is the application of econometrics and the interpretation of empirical results.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, 3.5 hours. The compulsory assignment must be passed in the same semester as the examination.

Examination aids: Simple calculator, no other examination aids

Curriculum: Demodar N. Gujarati (2002). Essentials of Econometrics, third edition, McGraw-Hill. Might be updated before the course begins.

ECN210 Microeconomics- Consumers, Producers, Market and Welfare

Mikroøkonomi - Konsument, produsent, marked og velferd

ECTS: 10 **Language:** Norwegian

Staff/institute: Sigurd Rysstad/ IØR

Teachers: External teacher 2010

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: MATH100 Introductory Mathematics. It is an advantage but not required to have some background in microeconomics, for instance equivalent to ECN110/ECN111.

Credit reduction:

Type of course: Lectures: 3 hours per week (throughout the semester) for 13 weeks. Exercise sessions: 4-6 hours per week (dependent upon demand).

Contents: Part I: Unconstrained and constrained Optimisation. Part II: Consumer theory. Part III: Producer theory. Part IV: Perfect competition and monopoly. Part V: Welfare economics.

Learning outcomes: The course aims to give a basic introduction to microeconomic theory: (a) Consumer theory. (b) Producer theory. (c) Perfect competition and monopoly. (d) Welfare economics. Most applied courses in economics and business economics are based on microeconomics. This course will, hopefully, help the student to: (i) Acquire

an overview over the most important concepts and models in microeconomics. (ii)

Learn to formulate and solve microeconomic problems graphically and mathematically.

iii) Acquire good qualifications for further studies in economics.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination: 5 hours.

Examination aids: Simple calculator, no other examination aids

Curriculum: Varian, Hal: Intermediate Microeconomics. A Modern Approach.

ECN211 Microeconomics - Institutions, Games and Market Failures

Mikroøkonomi - Institusjoner, spill og markedsvikt

ECTS: 10 **Language:** Norwegian

Staff/institute: Sigurd Rysstad/ IØR

Teachers: External teacher in 2010

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: ECN210 or equivalent.

Type of course: Lectures: 3 hours per week (throughout the semester). Exercises: 2-4 hours per week.

Contents: 1. Introduction - economics and institutions. 2. Game theory and the tools of strategic business analysis. 3. The internal organisation of the firm. 4. Monopoly and monopolistic competition. 5. Natural monopolies and the economics of regulation. 6. Oligopoly. 7. Market entry and the emergence of perfect competition. 8. Perfect competition and auction theory. 9. Uncertainty and insurance markets. 10.

Informational market failures. 11. Externalities and public goods. 12. Input markets.

Learning outcomes: To be able to understand and analyse market behaviour and market organisation, and why and how governments should regulate business behaviour.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination: 5 hours.

Examination aids: Simple calculator, no other examination aids

Curriculum: Schotter: Microeconomics. A Modern Approach.

ECN220 Economics II

Samfunnsøkonomi II

ECTS: 10 **Language:** Norwegian

Staff/institute: Per Halvor Vale/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: 1 Compulsory assignment.

Prerequisites: ECN120 or an equivalent course.

Type of course: Lectures: 3 hours per week. exercises/application: 2 hours per week.

A more thorough plan will be handed out at the beginning of the course

Contents: Part 1: Discussion of economic stabilization, based on different models as: - the IS-LM model. - the IS-LMBP. model. - the AD-AS model. Part 2: Discussion of economic growth and development, based on: Solow's growth model - and endogenous growth theory. Part 3: Compulsory assignment - having the possibility to go deeper into the theoretical and applied stuff.

Learning outcomes: The aim of the course is to give: (i) The competence in macroeconomics required for a Bachelor's degree in Economics and in Business Administration. (ii) Competence in macroeconomics that gives a foundation for admission to a Master's degree programme in economics. (iii) Knowledge of central macroeconomic models as:
 *Keynesian multiplier models. *The IS-LM-BP, including the Mundell-Fleming version. *The AD-AS model. *Solow's growth model, and recent growth theory.
 (iv) Armed with these tools of models, the student should be able to undertake evaluations of macroeconomic issues and consequences of the macroeconomic phenomena for trade, businesses and individuals. (v) Finally, the course should give the students training in: - Reading economic reports, for instance parliament reports, NOU-reports, etc. - Speak about and discuss economic problems when others are present.
 The course,

like other economics courses, is to teach the students: - To be involved in society. - An analytical attitude. - An academic attitude, with special requirements for objectivity and impartiality. - That the world is more complicated than any of our macroeconomic models and that a final answer is not given - we must have respect for other answers and solutions than our own.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination - 4.0 hours

Examination aids: Simple calculator, no other examination aids

Curriculum: Main Book: P.H. Vale: Makroøkonomi. Har vi kontroll på utviklingen? Abstrakt forlag, Third edition 2010. Supplement: Røisland, Øistein og Tommy Sveen (2005; Pengepolitikk under et inflasjonsmål” Norsk Økonomisk Tidsskrift 119 (2005). Den Europeiske Valutaunionen
<http://pages.stern.nyu.edu/~nroubini/Emu/Emu.htm>

Diskusjonen mellom Bernanke og Taylor om pengepolitikk i USA før finanskrisen:

Foredrag Bernanke:

<http://www.federalreserve.gov/newsevents/speech/bernanke20100103a.htm>

Hva mener Taylor:

http://www.house.gov/apps/list/hearing/financialsvcs_dem/taylor_testimony.pdf

Blanchard, O. M.fl. Rethinking Macroeconomic Policy, international monetary Fund

Steinar Holden: ”[Pengepolitikken etter finanskrisen](#)”. Samfunnsøkonomen nr 4, , 2010

Nasjonalbudsjettet 2009/10) og St. meld nr. 2 2009/10 (Revidert nasjonalbudsjett

2009/10) (leses overfladisk) Adresse på nettet til nasjonalbudsjettet og revidert

nasjonalbudsjett er henholdsvis

ECN230 International Economics

Internasjonal økonomi

ECTS: 5 **Language:** English

Staff/institute: Roberto J. Garcia/ IØR

Teachers: External lectures

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities:

Prerequisites: Basic knowledge in macro- and microeconomics ECN120, ECN220 and ECN210.

Type of course: 4 hours per week.

Contents: This course is designed to bridge international economic theory and applied agricultural economics, providing a review of issues in development, policy, trade, and welfare.

Learning outcomes: The student is expected to develop: an understanding of why nations trade and under which conditions trade occurs; knowledge of the role of supply and demand factors in determining the gains from trade; the ability to evaluate the welfare effects of protectionist trade policies, free trade, managed trade, and the economic implications of other forms of government intervention to foster development; a conceptual framework for evaluating international competitiveness, comparative advantage, and foreign investment and strategic behaviour.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: 3 hour written examination.

Examination aids: No calculator, specified other examination aids

Curriculum: · Appleyard and Field (A+F), International Economics (International Edition), 4th edition 2006. ·

Supplementary reading on web.

ECN260 Agricultural Policy

Landbrukspolitik

ECTS: 10 **Language:** Norwegian

Staff/institute: Normann Aanesland/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: Fundamental knowledge in Microeconomics, ECN210.

Type of course: 4 hours per week.

Contents: The course is built up of several topics: Historical development, theory parts, relevant problems concerning agriculture and forestry policies, e.g.: Goals for agriculture and forestry policies, means and institutions. The effects of the EEC, EU and WTO on Norwegian agriculture and forestry.

Learning outcomes: The purpose of the course is to give a broad introduction to policies concerning agriculture and forestry. The course is mainly based on welfare theory and micro theory. The connection between agriculture and forestry and the general development of society. The development of Norwegian forestry and agriculture policies. The system for political administration of agriculture and forestry. The use of resources and production adaptation: Goals and means for achieving the goals. The influence of agriculture and forestry on the environment. Municipal management of agriculture and forestry. The agriculture and forestry policies in the EU. New policies on agriculture and forestry. The topics may vary somewhat from one year to the next.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination - 3.5 hrs.

Examination aids: No calculator, specified other examination aids

Curriculum: Aanesland, Normann (1987): Landbrukspolitikk. Produksjonstilpassing for å nå ulike jordbrukspolitiske mål.

Aanesland, N. and H. Blytt (1993): Internasjonal handel med mat, Landbruksforlaget.

Aanesland, N. and H. Mjelde,(1997): Fra politikk til entreprenørskap,

Landbruksforlaget. Aanesland, N. and I. L. Labugt (2000): Bygdeutvikling til nytte for hvem, Landbruksforlaget.

An overview of the course readings will be handed out at the first lecture.

ECN262 Regional Economics and Regional Policy

Regionaløkonomi og regionalpolitikk

ECTS: 5 **Language:** Norwegian

Staff/institute: Sigurd Rysstad/ IØR

Teachers: Economics teacher.

Start term: January block

Terms: January block

Prerequisites: ECN110 and ECN120.

Type of course: 2-4 hours per day.

Contents: (i) Regional development trends. (ii) Regional economic models. (iii) Rural and regional policies in Norway and the EU.

Learning outcomes: The course will enable students to (i) Master selected regional economic models. (ii) Gain an overview over Norwegian industry and district policies as well as an overview over how the EU/EEC influences the development of industry and industrial and regional policies.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: 3 hour written examination.

Examination aids: No calculator, no other examination aids

Curriculum: Armstrong and Taylor: Regional economics and policy (or the equivalent).

ECN270 Resource and Environmental Economics

Ressurs- og miljøøkonomi

ECTS: 5 **Language:** English

Staff/institute: Arild Angelsen/ IØR

Teachers: Ragnar Øygaard.

Start term: Autumn parallel

Terms: Autumn parallel

Emnebeskrivelser - 200

Mandatory activities: Four out of five exercises approved.

Prerequisites: Microeconomics at the level of ECN212 or ECN210/211.

Credit reduction: ECN170, ECN273 and EDS240 reduced respectively with 3, 2 and 3 credits.

Type of course: 4 hours lectures and exercise review per week (some weeks only 2 hours).

Contents: Lectures and exercises will address the following issues: Economy - ecology interactions, sustainable development, cost-benefit analysis, optimal management of renewable and non-renewable resources, pollution, biodiversity conservation, land degradation and deforestation, valuation of environmental resources and accounting for

the environment, international environmental agreements. The course will emphasise issues, cases and perspectives of particular relevance to developing countries.

Learning outcomes: Candidates should be able to apply economic theory to analyse environmental and natural resource management issues. These issues include: economy - ecology interactions, sustainable development, optimal management of renewable and non-renewable resources, optimal pollution, biodiversity conservation, land degradation and deforestation, valuation of environmental resources and accounting for the environment, and international environmental agreements.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination, 3 hours: 100 %.

Examination aids: Simple calculator, no other examination aids

Curriculum: Perman, R., Y. Ma, J. McGilvray, and M. Common, 2003. Natural Resource & Environmental Economics. 3rd. ed. Harlow, UK: Pearson Education (selected parts). Selected articles and book chapters.

ECN271 Project Evaluation and Environmental Valuation

Prosjektanalyse og verdsetting av miljøgoder

ECTS: 10 **Language:** English upon request

Staff/institute: Ståle Navrud/ IØR

Teachers: David Barton

Start term: Spring parallel

Terms: Spring parallel

Prerequisites: ECN170 (or ECN270) or similar introductory course in environmental and resource economics; and ECN210 or similar introductory course in microeconomics.

Type of course: 28-30 hours plus supervision of the group assignments.

Contents: The course gives an overview of theory and methods for economic appraisal of projects, in terms of cost benefit analysis (CBA) and theory and methods for economic valuation of environmental goods; including the damage function approach, environmental and health valuation methods and benefit transfer techniques. Applications to environmental impacts from renewable and non-renewable energy investments (e.g. wind farms, hydro power plants, gas-fired power plants), noise and other impacts from transportation projects, air and water pollution policies, landscape aesthetics, biodiversity preservation, recreational fishing and hunting, marine oil spills, and health impacts from air pollution. Environmental valuation in developing countries. Laws and guidelines for CBA in Norway, EU, USA and developing countries. Welfare theoretic basis for CBA and the value judgements/assumptions made in CBA. A stepwise approach to CBA, with special emphasis on risk/uncertainty, distributional impacts, economic valuation of environmental impacts, and treatment/presentation of non-valued impacts.

Learning outcomes: After the course, students should be able to carry out, interpret and critically evaluate Cost-Benefit Analyses (CBAs) of projects and policies, including the treatment and economic valuation of environmental impacts, health impacts and impacts on cultural heritage.

Methods of examination: Final **Grading:** A-F

Assessment methods: A semester assignment (100 %), which is prepared by groups of 2-4 students. In the semester assignments the students will apply what they have learned about theory and methods to a case of their own choice, i.e. an economic analysis of a project with environmental impacts. In the semester assignment, the students will also have to answer questions from a check list, which covers the curriculum of the course.

Curriculum: - Boardman, A. E, D. H Greenberg, A. R. Vining & D. L. Weimer: 2006: Cost-Benefit Analysis. Concepts and Practice. 3rd edition. Prentice Hall, Inc., Upper Saddle River, New Jersey, USA; and Selected journal papers (in ECN271 -Compendium).

ECN280 Energy Economics

Energiøkonomi

ECTS: 10 **Language:** Norwegian

Staff/institute: Torstein Bye/ IØR

Start term: Spring parallel

Terms: Spring parallel

Prerequisites: Microeconomics.

Type of course: Lectures, guidance on set days, 4 hours per week.

Contents: 1) Introductory lecture with an overview over energy markets. 2) Water employment in a hydro-based power system - from simple systems to complicated systems - with main emphasis on theory and the setting of prices through various types of counters in the system. 3) From free competition to market power in energy markets. 4) Taxation of energy markets with focus on problems concerning the basic rent and environmental problems. 5) Green mechanisms in the energy markets. 6) Special problems in connection with gas and gas transport. 7) Special problems in connection with oil markets.

Learning outcomes: To give the students an understanding of central economic problems and insight into theory and analysis methods in connection with trade and production, sale and taxation of various forms of energy in a decentralised and relatively open economy.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination (3.5 hours), counts 100%.

Examination aids: Simple calculator, no other examination aids

Curriculum: The syllabus will be handed out at the first lecture.

ECN301 Econometric Methods

Økonometrisk metode

ECTS: 10 **Language:** English

Staff/institute: Olvar Bergland/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Compulsory exercises and project work involving econometric analysis using computers. (Approved work is valid for two - 2 - years.)

Prerequisites: An introductory course in econometrics (ECN201) (or regression analysis), statistics (STAT100), microeconomics (ECN210), and linear algebra at the level of ECN302.

Credit reduction: This course replaces ECN300. A student can not be given credit for both ECN300 and ECN301.

Type of course: Class lectures: 45 hours. Laboratory work: 25 hours.

Contents: This course focuses on modern econometric methods for the analysis of economic data - both cross-sectional and time-series data. The following topics are covered: estimation and testing of linear regression models with stochastic and possibly endogenous regressors, panel data models, systems of equations, models with limited dependent variables, models of sample selection and program evaluation, and time-series models for stationary or non-stationary processes, cointegration and error correction models.

Learning outcomes: The successful student should be able to conduct independent econometric analysis of economic data, and to critically evaluate econometric analysis with respect to choice of model, method and interpretation of results. The analysis should be performed using a computer and appropriate software. The econometric analysis should be in accordance with current standards for scientific documentation within economics.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: 4 hour final examination.

Examination aids: Simple calculator, specified other examination aids

Curriculum: J.M. Wooldridge (2009): 'Introductory Econometrics: A Modern Approach', 4th edition. Handouts. (This is may change.)

ECN302 Mathematics for Economists

Matematikk for økonomer

ECTS: 5 **Language:** English

Staff/institute: Kyrre Rickertsen/ IØR

Teachers: Kyrre Rickertsen and Dadi Kristofersson.

Start term: August block

Terms: August block

Prerequisites: Mathematics on the level of MATH100.

Credit reduction: There are the following reductions: MATH111, 1 ECTS; MATH112, 1 ECTS; MATH130, 2 ECTS.

Type of course: There are four hours of lectures and exercises per day. About half the time will be allocated to lectures and the remaining time will be allocated to exercises.

Contents: The course covers mathematical tools that will be assumed known in courses such as, for example, ECN311 (Microeconomics) and ECN301 (Econometrics). The course is a required course for the M.Sc. degree in Economics at IØR. Topics covered in matrix algebra include: Summation operators, types of matrixes, matrix operations, Gauss-Jordan elimination, determinants, the inverse of a square matrix, matrix differentiation, Cramer's rule, and the matrix approach to regression. Topics covered in optimization include: Elasticities, the chain rule, unconstrained optimization, equality constrained optimization (Lagrange), inequality constrained optimization (Kuhn Tucker), implicit function theorem, and envelope theorem.

Learning outcomes: The course will introduce the matrix algebra required in courses in econometrics and the tools required for solving optimization problems in economics. The focus is on applying the mathematical tools rather than proving them. An important part of the course is to solve problem sets.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: Pass/Fail

Assessment methods: Three problem sets must be completed within the deadline for each set and graded as passed to pass this course.

Curriculum: The required readings may change. 1) Parts of Alpha C. Chiang and Kevin Wainwright (2005) Fundamental Methods of Mathematical Economics, McGraw Hill International edition. 2) Parts of Silberberg and Suen (2001). The Structure of Economics - A Mathematical Analysis, third edition, Irwin McGraw-Hill. 3) Lecture notes and other handouts.

ECN303 Impact Assessment Methods

Statistiske metoder for politikkvirkninger

ECTS: 5 **Language:** English

Staff/institute: Stein Terje Holden/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Compulsory participation in exercises

Prerequisites: Econometrics (ECN201), Statistics (STAT100), basic knowledge of STATA

Type of course: 2 hours per week, combining lecture and exercise.

Contents: Basic introduction to Impact Assessment and Overview of Methods: Establishment of causality vs. correlations. Impacts of what on what? How far can the results be generalized? Introduction and exercise in use of Matching methods, Instrumental variable methods, Control function methods, Difference-in-Difference methods, Panel data methods, Pipeline and experimental methods.

Learning outcomes: An introduction to modern impact assessment methods for quantitative assessment of impacts of changes in policies, projects, shocks and other changes. An overview of the most relevant methods, their strengths, weaknesses and areas of application. An exercise is given for each of the main methods to give students as experience with their application.

Methods of examination: Final Written exam **Grading:** A-F

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Assessment methods: 3.5 hours written exam

Examination aids: No calculator, no other examination aids

Curriculum: Detailed list of readings is provided at the beginning of the course.

ECN311 Microeconomics

Mikroøkonomi

ECTS: 10 **Language:** English

Staff/institute: Kyrre Rickertsen/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Five problem sets must be graded as passed before taking the examination.

Prerequisites: Microeconomics on the level of ECN210/ECN211. Mathematics on the level of ECN302 (Mathematics for economists).

Credit reduction: ECN310, 5 ECTS.

Type of course: There are four hours of lectures and exercises per week. About 60% of the time will be allocated to lectures and 40% to exercises.

Contents: The course extends the material covered in intermediate courses in microeconomics. Special emphasis is put on duality theory in economics. The lectures cover the theory of the consumer, welfare measures, the theory of the producer, and behavior under uncertainty.

Learning outcomes: The theory introduced in intermediate courses in microeconomics is further developed in ECN311. The course will give the students basic training in solving economic problems related to supply, demand, and input demand. The focus is on applying rather than proving theory. The course gives a basis for further studies in, for example, development, resource, and environmental economics.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: The grades will be set on the basis of a 3.5 hour written examination.

Examination aids: Simple calculator, no other examination aids

Curriculum: Eugene Silberberg and Wing Suen. *The Structure of Economics - A Mathematical Analysis*, Irwin McGraw-Hill, third edition, 2001.

Alternatively: Hal R. Varian. *Microeconomic Analysis*, third edition, Norton, 1992.

ECN312 Industrial Organisation

Industri- og markedsstruktur

ECTS: 5 **Language:** English

Staff/institute: Olvar Bergland/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: Intermediate microeconomics (ECN211). Mathematics at the level of ECN302.

Credit reduction: This course replaces ECN213, a student cannot receive credits for both ECN213 or ECN312.

Type of course: Lectures: 25 hours. Group discussions: 15 hours.

Contents: The following topics are covered: partial and general equilibrium, welfare theory, non-cooperative game theory, market power, monopoly, oligopoly, horizontal and vertical relations, and strategic behavior towards entry deterrence.

Learning outcomes: The course aims at providing the students with economic concepts and analytical tools required for understanding, explaining and analyzing market behavior, market structure and market power; and the interplay between the market conditions and strategic behavior. The use of game theory is emphasized.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final examination, counts 100%, 3 hours.

Examination aids: No calculator, no other examination aids

Curriculum: Motta (2004): '\Competition Policy'. Handouts and journal articles.
(This may change.)

ECN320 Macroeconomics III

Samfunnsøkonomi III - Makroøkonomi

ECTS: 10 **Language:** English

Staff/institute: Ragnar A. Øygard/ IØR

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Students will be assigned three individual written assignments, two of which must obtain a pass grade. Each student must also give a presentation in class of a scientific paper, a book, a debate, or similar. Passed compulsory activities will be valid for 1.5 years.

Prerequisites: Bachelor's degree in economics or an intermediate course in macroeconomics at the level of ECN220.

Credit reduction: ECN352: 10 ECTS.

Type of course: 4 hours per week for lectures and exercises.

Contents: Topics in the course include: 1. Growth theory. 2. The relationship between economic growth and development. 3. Poverty and inequality. 4. Stabilization policy. 5. Current issues

Learning outcomes: Students should be able to use economic models to analyze current concerns related to macroeconomic stabilization, economic growth and development. The course should also stimulate interest in current social issues and an analytical attitude.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: A written examination (3.5 hours)

Examination aids: Simple calculator, no other examination aids

Curriculum: A section of book chapters and journal articles. A reading list will be provided at the start of the semester.

ECN330 Economic Integration and Trade Liberalization

Økonomisk integrasjon og internasjonal handel

ECTS: 10 **Language:** English

Staff/institute: Roberto J. Garcia/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: There are between 4-6 exercises related to the course modules.

Prerequisites: Microeconomics, International Economics, ECN211/ECN212, ECN230, ECN 331, ECN201.

Type of course: Class will meet 6 hours per week and 42 hours total (seven weeks). This will allow time for students to work on the semester project.

Contents: The course is designed with two objectives: to complete the student's understanding of the basic economics of trade through a formal treatment of the macro economy and its relation to exchange rates, exchange regimes and policy; and to provide a practical understanding of economic integration and the importance of the multilateral trading system (the WTO in particular) as a platform to address issues or voice concerns related to trade in goods and services (with special emphasis on the Agreements on Agriculture, Sanitary and Phytosanitary measures, Technical Barriers to Trade). Finally, trade policy and agricultural programs in selected importing and exporting countries are discussed in terms of their compliance with WTO Agreements.

Learning outcomes: Students are expected to develop: · a conceptual framework for understanding the legal, political and economic implications of economic integration versus trade liberalization through a study of the development of the European Union

and the multilateral trading system under the WTO; and · the ability to assess trade policies and domestic regulations affecting trade in goods, services and intellectual property (special attention is paid to agricultural programs of a country to determine whether such policy is compliant with a country's commitments under the WTO Agreements).

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Final written examination, 3.5 hours, 60%. Oral examination, 40%. The students have to pass both parts of the examination.

Curriculum: · Any international economics textbook covering ECN 230 equivalent material, Hoekman and Kostecki, *The Political Economy of the World Trading System*, 2001; · Web-based readings

ECN331 International Economics and Finance

Internasjonal økonomi og finans

ECTS: 5 **Language:** English

Staff/institute: Roberto J. Garcia/ IØR

Start term: August block

Terms: August block

Mandatory activities: 4 exercises or problem sets.

Prerequisites: ECN230.

Type of course: 21 lecture hours and exercise sessions; there are seven 3-hour sessions. There is flexibility to slow down or increase the pace of meetings. Can either meet in morning sessions (09.15-12.00), afternoon sessions (14.15-17.00) or both.

Contents: Macroeconomic analysis and international trade. - Balance of payments. - Balance of trade. - Capital account. - Reserves. Exchange rates. - Law of one price, terms of trade, and purchasing power parity. - Forecasting, speculation, hedging and arbitrage: equilibrium exchange. - Modelling currency markets. Money markets and interest

rate determination. - Money demand and money supply. - Interest parity and exchange rates. - Capital markets. Fiscal policy, goods market equilibrium. Monetary policy and asset market equilibrium. Alternative exchange regimes and central bank operation. Capital controls. Monetary union.

Learning outcomes: The course is designed to complete the students's understanding of the basic economics of trade through a formal treatment of the international macroeconomy and its relation to foreign exchange, foreign exchange regimes, capital movements, exchange rates and macroeconomic policy. Specifically, the student is expected to develop: 1) an understanding the relation of the microeconomics of international trade with the macroeconomics of international transactions; (2) an appreciation for the complex relationships between macroeconomic indicators and the foreign exchange markets, and the interrelationships among assets, goods, and foreign exchange markets; and (3) an understanding of the implications of a government's (and central bank's) macroeconomic policy/objectives under fixed, flexible and

managed foreign exchange regimes and the economic implications of the policy choices from each.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, 3.5 hours.

Examination aids: No calculator, no other examination aids

Curriculum: Appleyard and Field (A+F), International Economics, McGraw-Hill , 4th edition, 2006;

Houck, Elements of Agricultural Trade Policies, Macmillan Publishing Co., 1986 (chapter 15); Web-based readings

ECN350 Development and Environment Economics

Utviklings- og miljøøkonomi

ECTS: 10 **Language:** English

Staff/institute: Stein Terje Holden/ IØR

Teachers:

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Compulsory exercises. Group work/presentations.

Prerequisites: Basic knowledge in economic theory (microeconomics, macroeconomics, development economics, resource economics, econometrics, operations research. ECN200/201, ECN230, ECN353, ECN270.

Credit reduction: ECN450, 10 credits.

Type of course: Lectures: 2-4 hours per week. Exercises: 0-2 hours per week. Total: 4 hours per week (lectures and exercises).

Contents: Quantitative Development Policy Analysis. Economics of rural organisation. Natural resource economics, poverty and development.

Learning outcomes: To give the students deeper insights in economic theory and methodology and how to use these for the analysis of development and environment policy issues in developing countries. - Advancement of theoretical and methodological skills. - Combine theory and methodology to do applied policy analysis. - Policy analysis for poverty reduction, food security and natural resource management.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination (3.5 hours).

Examination aids: Simple calculator, no other examination aids

Curriculum: A detailed reading list is handed out at the start of the course.

ECN351 Research in Development Economics

Forskningsmetoder i utviklingsøkonomi

ECTS: 5 **Language:** English

Staff/institute: Arild Angelsen/ IØR

Teachers: Stein Holden, Mette Wik, Ragnar Øygard.

Start term: January block

Terms: January block Spring parallel

Mandatory activities: Students must attend lectures and exercises and pass compulsory assignments in order to pass the course.

Prerequisites: ECN212 Microeconomics or ECN210/211 Microeconomics II and ECN220 Economics II, ECN201 Econometrics.

Credit reduction: It is not possible to earn credits for both ECN351 and previous ECN250, as these courses overlap considerably.

Type of course: Two hours of lectures plus two hours of exercises per day for two weeks during the January block. One workshop to present the first draft of research proposals in March.

Contents: The course will cover the following topics: - How to find good research questions; - How to write a thesis and research proposal; - General writing rules; - Field research methods; - Social surveys, including sampling, questionnaire design and analysis; - Impact studies; and - Introduction to the STATA statistical package.

Learning outcomes: In this course, students should be able to find and present a researchable topic within development economics and to write a research proposal for their thesis. In order to write a research proposal they need to be able to: - demonstrate command of existing knowledge within their research topic; - use existing knowledge to explore the issue of interest; formulate researchable research questions and/or hypotheses; - locate economic data and/or plan how to collect their own field data; and understand the methods used to compile and analyse the data.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: Pass/Fail

Assessment methods: The semester assignment (research proposal) is due late March, and makes up 100 percent of the final grade.

Curriculum: Wyrick, Thomas L. 1994. *The Economist's Handbook: A Research and Writing Guide*. Other relevant literature to be distributed.

ECN353 Development Economics, Micro

Utviklingsøkonomi, mikro

ECTS: 5 **Language:** English

Staff/institute: Mette Wik/ IØR

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Compulsory assignments.

Prerequisites: Microeconomics on level II.

Credit reduction: With ECN251, 5 ECTS.

Type of course: Four hours of lectures and exercises per week. A more thorough lecture plan will be handed out at the beginning of the semester.

Contents: The course studies how microeconomic theory can be used for the study of developing countries. The focus is on the economics of farm households. We especially emphasise the difference between farm-household economics and conventional

economics of the firm. The course will also study rural organisations (institutions), including market and non-market institutions.

Learning outcomes: The students should understand and be able to elaborate on: - how rural households and rural institutions adapt in developing countries; - why the behaviour of rural households and rural institutions in developing countries are different from the behaviour of firms and markets in developed countries.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: A 3.5 hour sit-in examination counts as 100 percent of the final grade. This examination arrangement might be changed.

Examination aids: No calculator, no other examination aids

Curriculum: Ellis, F. (1993): Peasant Economics: Farm Households and Agrarian Development. Cambridge University Press. Ray, D. (1998): Development Economics. Princeton University Press, Princeton, N.J. Other relevant literature.

ECN354 Issues in Development Economics; Poverty Analysis

Emner i utviklingsøkonomi; Fattigdomsanalyse

ECTS: 5 **Language:** English

Staff/institute: Arild Angelsen/ IØR

Start term: Spring parallel

Terms: Spring parallel

The course is offered: Other - The course is given every third year (2011, 2014), and rotates with ECN 356 (institutions) and ECN 358 (aid).

Mandatory activities: Presentation in class.

Prerequisites: Intermediate knowledge (200 level) of micro and development economics.

Type of course: Lectures: 12 x 2 hours per week.

Contents:

Learning outcomes: Give insights into key issues in poverty analysis: definition, methods and main results.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Home exam (2 days).

Curriculum: Selected journal articles.

ECN355 Research in Development Economics II

Forskningsmetoder i utviklingsøkonomi II

ECTS: 10 **Language:** English

Staff/institute: Ragnar A. Øygard/ IØR

Teachers: Arild Angelsen, Stein Holden, Mette Wik.

Start term: January block

Terms: By demand

Mandatory activities: Students must attend lectures and exercises and pass compulsory assignments in order to pass the course.

Prerequisites: ECN212 Microeconomics or ECN211 Microeconomics II and ECN220 Economics II, ECN200 Econometrics or ECN201 Econometrics.

Credit reduction: ECN250: 5 credits. ECN351: 5 credits.

Contents: The course will cover the following topics: - How to find good research questions; - How to write a thesis and research proposal; - General writing rules; - Field research methods; - Social surveys, including sampling, surveys
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and analysis; - Impact studies; and - Introduction to the STATA statistical package. - Completing data collection through field work in a developing country

Learning outcomes: In this course, students should be able to find and present a researchable topic within development economics and to write a research proposal for their thesis. In order to write a research proposal they need to be able to: - demonstrate command of existing knowledge within their research topic; - use existing knowledge to explore the issue of interest; formulate researchable research questions and/or hypotheses; - locate economic data and/or plan how to collect their own field data; and understand the methods used to compile and analyse the data. Students will generate an original data set on which their Master's thesis can be based.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: Pass/Fail

Assessment methods: Two assignments must receive a 'pass' grade in order to pass the course: 1. A semester assignment # a research proposal for the Master's thesis - must be submitted ultimo March. 2. A data set collected through own field research in a developing country must be submitted by end of August block.

Curriculum: Wyrick, Thomas L. 1994. The Economist's Handbook: A Research and Writing Guide. Other relevant literature.

ECN360 Agricultural Policy and Resource Management

Landbrukspolitik og ressursforvaltning

ECTS: 10 **Language:** Norwegian

Staff/institute: Normann Aanesland/ IØR

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: Fundamental knowledge in microeconomics and courses in agricultural politics, ECN210 and ECN260.

Type of course: 4 hours per week.

Contents: The management system for agricultural policies, environment management and resource management in Norway, resource allocation - Norwegian agriculture in a global context, income transfer (OECD calculations etc.), international trade and agreements (GATT), WTO. Forestry policies, welfare theory, public choice theory, institutional economics and entrepreneur theory, (Asymmetric information, transaction costs, rent seeking and principal agent theory). Free market economy, market types and economic rent - Coase theorem - the tragedy of the common lands - external

effects, market failures/management failures. The system for agricultural policies. Systems for resource management: predators, moose, small game. The right of access. Land management at municipal level and county level. The market for farm real estate. The individual topics may vary somewhat from one year to the next.

Learning outcomes: Lectures, topic seminars and semester project shall give a deeper insight into theories and problems of current interest in agricultural policies. Emphasis is placed on teaching the students to use economic theories and theories from the social sciences to analyse topics of current interest in agricultural politics and resource management.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Topic assignment: 50 %. Oral examination: 50 %.

Curriculum: Stevens, Joe B., 1993. *The Economics of Collective Choice*, Westview Press, Boulder, San Francisco, Oxford.

North, Douglas C. (1993): *Institutionerna Tillväxt och välståndet*, SNS Förlaget, Stockholm.

Tullock, G (1976): *Den politiske marknaden*, RATIO.

Schumpeter, J. (Urval ur Richard Swedberg, 1994): *Om den skapande förstörelse och entreprenørskap*.

ECN371 Environmental Economics

Miljø-økonomi

ECTS: 10 **Language:** English upon request

Staff/institute: Eirik Romstad/ IØR

Teachers: Eirik Romstad.

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Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Work on and presentation of case studies.

Prerequisites: Microeconomic analysis at the intermediate/MSc level equivalent to ECN 311. Environmental and resource economics courses at the introductory level (ECN 170 or equivalent). For students without any previous courses in environmental and resource economics from their BSc, ECN270 is recommended. **Type of course:** About 50 hours, together with considerable guidance in connection with the case studies. There will be

additional seminars where student assignments will be presented. **Contents:** The course contains three elements. A) Advanced theory concerning systems analysis, resource allocation mechanisms, risk, control, information handling, behavioural assumptions, preference changes, transaction costs, rights, effects of different policy instruments with relation to various types of environmental problems and different behavioural assumptions. B) Studying concrete environmental economic problems - application of the theories. C) Case studies, where students in groups will discuss suitable policy instruments for the environmental issue in focus.

Learning outcomes: Students shall acquire an understanding of how to create more environmentally friendly behaviour among individuals and firms. The main focus is on the use of various policy instruments in environmental policy formulation. The course offers knowledge about the causes behind environmental problems and the various interactions between ecological processes and economic activity. Concerning economic behavior, the students will be educated in game theory and institutional behavioral theory. Within game theory (principal-agent models) the concept of resource allocation mechanisms and uncertainty will be emphasized. In the institutional part cooperative behavior, preference changes, and the importance of transaction costs and rights are core issues. The students shall learn to evaluate under which conditions the various theories are relevant. They shall, moreover, acquire knowledge about the effect of different policy instruments - economic, legal and informational - under different conditions.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, 3 hours (100%). To qualify for taking the examination, students must have participated in the case studies.

Examination aids: No calculator, no other examination aids

Curriculum: Compendium with selected articles. There is no suitable text book in this course, but new books are constantly reviewed.

ECN372 Climate and Environmental Economics

Klima og miljø-økonomi

ECTS: 10 **Language:** English upon request

Staff/institute: Eirik Romstad/ IØR

Teachers: E. Romstad, A. Angelsen, S. Navrud, O. Bergland

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Hand-ins. Seminars with presentations.

Prerequisites: ECN 210 or an equivalent course in microeconomics

Credit reduction: ECN370: 10 credits.

Type of course: 28-30 hours

Contents: The course consists of two main parts: i) GLOBAL CLIMATE REGIME AND NEGOTIATIONS Here we will provide the background to understand the global climate negotiations, and also to assess the different options currently being discussed in the UNFCCC process, leading up to the main climate meeting (COP15) in Copenhagen

in December 2009. Topics include: - the science of climate change, how to value the future and deal with risk? – main principles for a global climate regime: tradable emission quotas or a global carbon tax? - what is a fair distribution of quotas (distribution of costs and benefits) between countries? - how much should rich countries pay for emissions reduction in developing countries, and how much should developing countries bring to an agreement? - What is the climate game? What happening at the negotiation table and in the corridors? - what is Norway's role? - how to assess the economic costs of climate change ii) NATIONAL POLICIES AND IMPLEMENTATION - what policies are available for implementing climate targets in Norway? - can technological development solve the problem? - what co-benefits can

greenhouse gas emission reductions produce? - policies for implementing Reduced Emissions from Deforestation and forest Degradation (REDD) in developing countries

Learning outcomes: The course will give the students a theoretical overview, using environmental economics and game theory, and learn them to apply this to current international negotiations and national policy discussions. The aim is to show how economic tools yield insights into the current debate, and can also be used to assess different options being discussed. While the combination of theoretical overview and application is focussed on the climate issues, the integrative part of the course will also be useful to many other environmental issues.

Methods of examination: Final Oral exam **Grading:** A-F

Assessment methods: Oral exam counts 100% of the grade. The students must have passed on all hand-ins.

Curriculum: Selected journal articles

ECN373 Environmental Accounting and Management

Miljøregnskap og miljøledelse

ECTS: 5 **Language:** English upon request

Staff/institute: Ståle Navrud/ IØR

Teachers: Carl Brønn.

Start term: Spring parallel

Terms: Spring parallel

Prerequisites: ECN170 or ECN270, or an equivalent introductory course in environmental and resource economics.

Type of course: 40 hours.

Contents: The course consists of three main parts: i) Environmental accounting: The course begins with a model of the environmental requirements that private and public enterprises are faced with and the alternative strategies that they may follow in order to fulfil these requirements from various stakeholders. Basic concepts such as sustainable development, ecological efficiency, eco-efficiency are reviewed, as well as the three bottom lines: economics, environment and corporate social responsibility, CSR. Social responsibility implies that existing and new enterprises take into consideration the rights and needs of the local population and that employees work under safe conditions with regards to health, environment and security. Then various methods for environmental accounting, life cycle assessment (LCA), environmental product declarations as well as systems for environmental labelling and certification are described, criticised and exemplified. ii) Environmental management: Environmental management for sustainable development of public and private enterprises is a dynamic and complex organisational challenge which requires adaptation and a willingness to think in new ways. Therefore, management methods for working with environmental cases must be sensitive to the social as well as to the technical consequences that this has for the organisation. Systems thinking is an analytic framework for understanding complex organisational structures as systems. In this way, the course gives an introduction to the method for thinking in systems, and shows how this can be applied to an organisation using the Balance Score Card (BSC) method. iii) Sustainable development for private and public enterprises: The course seeks to show how

knowledge of environmental accounting, systems thinking, the Balanced Score Card (BSC) method and Corporate Social Responsibility (CSR) can be used as management tools for environmentally friendly and sustainable public and private enterprises.

Learning outcomes: The students should be able to explain system-based management methods and practical tools for developing environmental strategies and environmental accounting systems for private and public enterprises, and be able to evaluate existing environmental accounting and management systems.

Methods of examination: Final **Grading:** A-F

Assessment methods: The semester assignment counts 100 % of the grade.

Curriculum: - Schaltegger, S. and R. Burritt 2000: Contemporary Environmental Accounting. Issues, Concepts and Practice. Greenleaf Publishing, Sheffield, UK. - Selected journal articles and book chapters, which are available at the course web site.

ECN374 Dynamic Optimisation

Dynamisk optimering

ECTS: 5 **Language:** English

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Staff/institute: Olvar Bergland/ IØR

Start term: January block

Terms: January block

Prerequisites: ECN302, ECN311, STAT100.

Type of course: About 25 hours of class-room lectures and 15 hours of group discussions.

Contents: The following tools for dynamic optimization will be covered: non-linear programming, optimal control theory, and deterministic and stochastic dynamic programming. These tools will be applied to such topics as capital, time, and interest rate; efficient intertemporal resource allocation; optimal investment programs; economic growth; extraction of non-renewable resources; harvesting of renewable resources; and irreversibility and uncertainty. Computer models will be used extensively.

Learning outcomes: The students should state, solve and interpret common dynamic optimization problems encountered in economics; and apply this knowledge and skills to independent economic analysis.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Final written examination, 3 hours.

Examination aids: Simple calculator, no other examination aids

Curriculum: Adda and Cooper (2003): 'Dynamic Economics'. Handouts and journal articles. (This may change.)

ECN380 Energy Markets and Regulation

Energimarkeder og regulering

ECTS: 10 **Language:** English

Staff/institute: Olvar Bergland/ IØR

Teachers: Torstein Bye, Ole Gjøølberg.

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: Approved project report. An approved project report is valid for two - 2 - years.

Prerequisites: BUS220, ECN201/ECN202, ECN211, ECN280.

Type of course: About 30 hours of lectures, and 10 hours of organized project work.

Contents: The course covers central issues concerning energy markets and economic regulation in the energy sector. Specific topics include: 1) regulation of network providers through dynamic yardstick competition, 2) measuring efficiency with DEA (data envelopment analysis) and SFA (stochastic frontier analysis), 3) organization of energy markets, 4) modeling of energy markets, 5) stochastic production planning in hydropower systems, 6) investments under uncertainty.

Learning outcomes: The students shall acquire knowledge about and experience with the use of economic analysis tools as applied to economic and political issues in the energy sector.

Methods of examination: Final Oral exam **Grading:** A-F

Assessment methods: Oral examination. (Note: Students have no right to complain against the marking of oral tests/ examinations, in accordance with the University and College Act § 5-3).

Curriculum: Selected parts of Førsund (2007): 'Hydropower Economics', Coelli (2005) 'An Introduction to Efficiency and Productivity Analysis'. The reading list will be handed out at the first lecture.

ECN450 Development Economics: Methods and Policy Analysis

Utviklingsøkonomi: Metoder og analyse

ECTS: 20 **Language:** English

Staff/institute: Stein Terje Holden/ IØR

Teachers:

Start term: Autumn parallel

Terms: Autumn parallel January block

The course is offered: Other -

Mandatory activities: Exercises, group work, presentations.

Prerequisites: Master's degree in Economics or Agricultural Economics.

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Credit reduction: ECN350 - 10 credit units.

Type of course: Lectures: 2-4 hours per week. Exercises: 0-2 hours per week. Writing of paper.

Contents: Teaching is combined with ECN350. Quantitative Development Policy Analysis: - Economic model building. - Production analysis and natural resources. - Demand analysis. - Household models. - Economy-wide models. - Supply response. - Econometric estimation with limited dependent variables. Economics of rural organisation. - New Institutional Economics and development. - Theories of collective action. - Market failures and externalities. - Food security and price stabilisation. - Land reforms and impact assessment. Environment and development. - Market

imperfections and the environment. - Poverty and land degradation. Choice of own topic for paper

Learning outcomes: Application of economic theory and methodology on development policy issues in developing countries. Combination of theory and methodology. Tools for policy analysis. Training in scientific writing.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Final written examination: 1/2, Scientific paper: 1/2. Final written examination joint with ECN350.

Curriculum: A detailed reading list is handed out at the start of the course.

ECN452 Topics in Development Economics I

Topics in Development Economics I

ECTS: 5 **Language:** English

Staff/institute: Arild Angelsen/ IØR

Teachers: Gerald Shively

Start term: June block

Terms: By demand

The course is offered: Even years

Learning outcomes: Topics vary from year to year, but will generally be within applied microeconomics for development analysis.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: Pass/Fail

ECN454 Topics in Development Economics II

Emner i utviklingsøkonomi II

ECTS: 5 **Language:** English upon request

Staff/institute: Ragnar A. Øygard/ IØR

Teachers: Arild Angelsen, Gerald Shively, Ian Coxhead.

Start term: Spring parallel

Terms: By demand

The course is offered: Odd years

Mandatory activities:

Prerequisites: Graduate level economics.

Type of course: Varies from year to year.

Contents: Course contents vary from year to year.

Learning outcomes: Course content will vary from year to year, depending on demand and supply.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: Pass/Fail

Assessment methods: Exercises and home-examination/semester assignment. All assignments/semester assignment/ examinations must receive a 'pass' grade.

Curriculum: Will vary from year to year.

ECN480 Electricity Economics

Electricity Economics

Credits: 5,0 **Language:** English

Staff/institute: IØR

Teachers: Professor Richard Green, Univ of Birmingham

Start term: August

Terms: 30. August to 3. September 2010

Entrance requirements: Master degree

Type of course: This course is intended for PhD students. Early-career researchers and advanced master students. Students who wish to present their work should send a 2-page abstract to AN APPROPRIATE EMAIL ADDRESS by August 9th – they will be notified whether they will be asked to give a presentation (which is likely to be for between 15 and 30 minutes, depending on demand) by August 18th.

Contents: The course covers the following topics:

- (1) Introduction to the electricity industry – technology and economics,
- (2) Overview of liberalisation of the electricity sector.
- (3) Electricity transmission, wholesale markets for electricity
- (4) Economic regulation in theory and practice.
- (5) Market power models and studies and price control exercise.
- (6) Current energy policy issues

More about the course description, lecture plan, detailed course outline and course materials (web-based readings, homework assignments and handouts) are available on the web at the following site: <http://athene.umb.no/emner/>

Learning outcomes: *This course will show how economic analysis has been, and is being, applied to electricity industry. Key theses will include the relationship between costs and market prices, methods of regulating monopolies, and the desirable level of investment. Ways of internalising environmental effects. Such as carbon emission. Will be considered at length during the course.*

Methods of examination: Continuous assessment. **Grading:** Pass/Fail

Assessment methods: Term paper

Curriculum: Stoft, S.E. (2002) *Power System Economics: Designing Markets for Electricity* Chichester, Wiley

*Green, R.J. (2005) "Electricity and Markets" *Oxford Review of Economic Policy*, vol. 21, no.1, pp. 67-87

*Joskow, P.L. (2008) "Lessons learned from electricity market liberalization", *Energy Journal* vol. 29, Special Issue no. 2

*Newbery, D.M. (ed.) (2006) Special Issue on European Electricity Liberalization, *Energy Journal* vol. 26, Special Issue
 More: <http://athene.umb.no/emner/>

INN200 Management Accounting *Økonomistyring*

ECTS: 10 **Language:** Norwegian

Staff/institute: Svein Kolstad Hansen/ IØR

Teachers: Svein Kolstad Hansen and guest lecturers.

Start term: Autumn parallel

Terms: Autumn parallel

Type of course: 4 contact hours per week. Problem solutions and presentations in the class will be important. Group work.

Contents: Cost accounting; Calculation principles and methods; Different tools for decision making; Project evaluation; Budgeting. Analysis of financial statements.

Learning outcomes: The students will be at ease with cost and income theory, and be able to use this in decision making. The course aims at giving the students knowledge to read, understand and analyse financial statements. The students shall after the course be able to actively contribute to the financial management and control of companies and projects.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: The continuous assessment of the students' work and contributions conclude with an oral examination based on the work the students have done during the course. Grading is based on the oral examination. No re-sit examinations.

Curriculum: Weetman, Pauline: Financial and Management Accounting, Prentice Hall 2006

INN210 Innovation *Nyskaping*

ECTS: 5 **Language:** Norwegian

Staff/institute: Anders Lunnan/ IØR

Teachers: Eystein Ystad.

Start term: August block

Terms: August block

Mandatory activities: Written assignments, presentation of assignments.

Type of course: Lectures, exercises, presentation and discussion of exercises. Lectures will be given every day in two separate blocks. Between the blocks students have time to work with exercises and to read the literature.

Contents: Introduction to innovation, definitions. Innovation in global context, economic importance of innovation. Sources of and models for innovation. Innovation, opportunities and entrepreneurship. Knowledge based innovation. Innovation management and learning organisations.

Learning outcomes: The course shall provide the students with basic knowledge about what innovation is and the importance of innovation for value creation of firms and nations. Students should know the difference between innovation and invention and be able to describe the connection between innovation, opportunities and entrepreneurship.

Knowledge based innovation will be in focus. They shall know about critical factors in innovation processes and be able to describe what a learning organisation is. Students should also know how small and large companies organise their innovation activities.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: The continuous assessment of the students' work and contributions conclude with an oral examination based on the work the students have done during the course. To qualify for the oral examination the students must have completed the assignments. The oral examination counts 100% of the final grade.

Curriculum: David Smith: Exploring Innovation. McGraw-Hill. ISBN: 9780077108618. Additional literature will be announced when the course starts.

INN220 Introduction to Entrepreneurship

Entreprenørskap i praksis

ECTS: 15 **Language:** Norwegian

Staff/institute: Anders Lunnan/ IØR

Teachers: Eystein Ystad, Nils Sanne, Elin Kubberød

Start term: August block

Terms: August block Autumn parallel Spring parallel

Mandatory activities: Participating in classes, group work and excursions.

Presentation of a business plan. Presentation of a given topic.

Prerequisites: Bachelors degree or equivalent.

Type of course: Lecturing/problem solving one to two days per week. The number of lecturing hours per day will vary from week to week. Excursions and workshops.

Group work.

Contents: Entrepreneurship and innovation in practice - visits to businesses and research groups; Marketing and market strategies; Organisation of start-up businesses; How to develop new ideas; How to finance start-up businesses; Business plan; Activities initiated by the students; Seminars and workshops.

Learning outcomes: The students shall learn about entrepreneurship and innovation within and outside of UMB; Networking; Acquire in depth knowledge within chosen topics in entrepreneurship and innovation. Learn to prepare a business plan.

Methods of examination: Continuous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Evaluation of a business plan and oral examination. Business plan counts 40 %. The oral examination counts 60 %. No re-sit examinations in this course. Written assignments have to be completed and approved before the exam.

Curriculum: McKinsey & Company: Fra idé til ny virksomhet, En håndbok for nye vekstselskaper. Universitetsforlaget 2. utgave 2007. Additional literature will be given at the start of the course.

INN310 Intellectual Property Rights

Industrielle rettigheter

ECTS: 5 **Language:** English upon request

Staff/institute: Anders Lunnan/ IØR

Teachers: Ivar Wergeland and others.

Start term: January block

Terms: January block

Mandatory activities: Case study, presentation of case study.

Prerequisites: Students should have a Bachelor degree or equivalent.

Type of course: 30 hours lectures, 10 hours exercises. The course is given in the January block. The teaching is given in two blocks, the students are expected to work on exercises between the teaching periods.

Contents: What is the purpose of IPR? Introduction to the fundamental understanding of innovations; novelty, inventiveness and industrial usefulness. Introduction to the fundamentals of the patent application process. Design, trade mark and copyright; when, where and how to apply. Business agreements: license-, confidentiality- and collaboration agreements. Commercialisation of IPR.

Learning outcomes: The course aims at giving the students the ability to read, analyse and practise the fundamental principles of intellectual property rights, IPR. The students should be able to handle the fundamental theory of trademarks, design, patents and business agreements (but also copyright and geographical rights). The skills should be

demonstrated as essential elements in the development of new products and services.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination; the case study must be approved before the written examination can be taken. No re-sit examinations will be arranged.

Examination aids: No calculator, no other examination aids

Curriculum: Will be announced at start of course.

PHI100 Examen Philosophicum

Examen philosophicum

ECTS: 10 **Language:** Norwegian

Staff/institute: Terje Kvilhaug/ IØR

Teachers: Frode Kjosavik

Start term: January block

Terms: Autumn parallel January block June block

The course is offered: Other - The course is offered twice each year, in January + June block and in the Autumn

parallel. PHI100 and PHI101 have the same lectures. The course is taught in ENGLISH in the January + June block

every second year, i.e., in 2011, 2013 etc.

Type of course: January + June block: 2 weeks of lectures + 1 week of exercises in each block. Autumn parallel: 2 x 2 hours of lectures + 2 hours of exercises per week.

Contents: Part I deals with the history of philosophy and of science, whereas Part II deals with philosophy of science and ethics.

Learning outcomes: The aim is to increase critical awareness within the student's academic field, related to such aspects as history and social context, ethics, as well as epistemological and methodological basis. The course is to improve the understanding of scientific justification, of the relationship between the sciences and between science, society and nature, as well as making students more conscious of value questions linked to research and its application, in particular in connection with nature. The course emphasises the special responsibility of UMB in this connection, on the basis of its environmental profile.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, 3.5 hours.

Examination aids: No calculator, no other examination aids

Curriculum: The syllabus is defined by the topics, but a specific compendium and two textbooks are recommended:

Ariansen et al.: 'Exphil II. Tekster i etikk' (Unipub, Universitetet i Oslo);

Ragnar Fjelland: 'Innføring i vitenskapsteori', (Universitetsforlaget, 1999).

An alternative in English will be available in the block period.

PHI101 Examen Philosophicum – Seminar

Examen philosophicum - seminarversjon

ECTS: 10 **Language:** Norwegian

Staff/institute: Terje Kvilhaug/ IØR

Teachers: Frode Kjosavik

Start term: January block

Terms: Autumn parallel January block June block

The course is offered: Other - The course is usually offered twice each year, in January + June block and in the Autumn parallel. The course is taught in ENGLISH every second year, that is in 2011, 2013, etc.

Mandatory activities: In the block period, students are required to attend at least 70 % of the lectures.

Type of course: Seminar arrangement in January + June block: 2 weeks of lectures + 1 week of seminar. 70 % to be attended in the block period. Seminar arrangement in Autumn parallel: 2 x 2 hours of lectures + 3 hours of seminars per week.

Contents: Part I deals with the history of philosophy and of science, whereas Part II deals with philosophy of science and ethics.

Learning outcomes: The aim is to increase critical awareness within the students academic field, regarding such aspects as history and social context, ethics, as well as the fields epistemological and methodological basis. The course is to improve the understanding of scientific justification and of the relation between the sciences and between science, society and nature, and to promote the students awareness for value questions linked to research and its application, in particular in connection with nature. The course emphasises the special responsibility of UMB in this connection, on the basis of its environmental profile.

Methods of examination: Continous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: No final examination, but semester assignment and tests, continuous assessment. The semester assignment and two multiple choice tests are graded according to the rules of the course description, with the semester assignment carrying more weight than the two tests combined.

Curriculum: The syllabus is defined by the topics, but a specific compendium and two textbooks are recommended: 'Exphil II. Tekster i etikk' (Unipub, Universitetet i Oslo); Ragnar Fjelland: 'Innføring i vitenskapsteori' (Universitetsforlaget, 1999).

An alternative in English will be available for the block teaching.

PHI201 Bioscience, Ethics and Environmental Philosophy

Biovitenskap, etikk og miljøfilosofi

ECTS: 5 **Language:** Norwegian

Staff/institute: Frode Kjosavik/ IØR

Teachers: Terje Kvilhaug

Start term: Autumn parallel

Terms: Autumn parallel

Prerequisites: Examen Philosophicum or equivalent.

Type of course: Two hours weekly: 2/3 lectures, 1/3 seminars.

Contents: Connection between view of man and view of nature. Future generations. Moral status for other life forms than humans. To what extent are humans entitled to exploit other organisms? Experiments with animals will be discussed on the basis of welfare and rights. Understanding of technology, including biotechnology, i.e., genetic modification. Views of nature with anthropocentrism and biocentrism as two extremes. Ethical relevant distinction between man-made and natural environments? Which parts of nature do we wish to preserve/conservate, and what is the justification for this? Cost-benefit analysis and environmental goods. Social justice and the ecologically good society (ecotopia)? Climate research and the politics of science. In what sense can we speak of equilibrium in nature? Is there a difference between man-made and natural

disturbance? Do disturbances increase or decrease biodiversity? Is there a connection between complexity and stability in ecosystems? What are the implications of chaos theory for conservation biology?

Learning outcomes: The aim of the course is to train the student to analyse and reflect critically on issues concerning animal and environmental ethics, and to put these into a wider scientific and philosophical context.

Methods of examination: Final Written exam **Grading:** A-F

Assessment methods: Written examination, 3 hours.

Examination aids: No calculator, no other examination aids

Curriculum: Compendium.

PHI301 Ethics in Business

Etikk for næringslivet

ECTS: 5 **Language:** Norwegian

Staff/institute: Terje Kvilhaug/ IØR

Teachers: Anita Leirfall, Frode Kjosavik and others.

Start term: Spring parallel

Terms: Spring parallel

Mandatory activities: Students have to attend at least 65 % of the lectures.

Type of course: 20-24 hours of teaching.

Contents: It targets future managers and economists in business and public administration. It will deal with relevant ethical issues, like globalization, sustainability, corporate responsibilities, techniques of business ethics managements, business ethics in relation to shareholders, employees, consumers, civil society, government and regulations, etc.

Learning outcomes: The course shall prepare students for ethical problems, challenges and dilemmas that they will face in their future professions.

Methods of examination: Continous assessment. The teacher should be able to document how the various course activities are to be assessed, if they need to be passed, and how they are weighted when determining the course's final grade.

Grading: A-F

Assessment methods: Written assignment (60 %) and oral examination (40 %). There can be no complaints over the grade from the oral examination.

Curriculum: Selection from Crane & Matten: 'Business Ethics' (3. edition, Oxford University Press, 2010).

PHI401 Research Ethics and Philosophy of Science I

Forskningsetikk og vitenskapsfilosofi I

ECTS: 5 **Language:** English

Staff/institute: Terje Kvilhaug/ IØR

Teachers: Frode Kjosavik, Deborah Oughton.

Start term: Autumn parallel

Terms: Autumn parallel

Mandatory activities: The students must attend at least 70 % of lectures and seminars.

Credit reduction: The course overlaps the first part of the course PHI 402. Students who take the course PHI 402 in addition to PHI 401 will only receive 5 study points. Students who have taken the course PHI 400 (given last time autumn 2008) will receive no study points by taking the courses PHI 401 or PHI 402.

Type of course: Around 28 hours lectures + seminars and group discussions.

Contents: An elementary and introductory course in philosophy of science will give the student a good basis for a better understanding of issues in the main part (research ethics/social responsibility of science), both through illuminating science as a practice form and through its own ethical aim ('good' science). Among the issues to be discussed can be mentioned: The value- and norm systems of science; facts and values; political-economical interests and scientific integrity; research ethical guidelines; duties towards other scientists and research objects; science, technology and society; ethical challenges in developmental research; scientific rationality and scientific methods; scientific realism and social constructivism; metaphors and theory formation; theoretical experience/experimental experience.

Learning outcomes: The course aims at an increased understanding of science in practice, i. e. science as it is carried out in diverse ways within the natural, social and cultural sphere. The course considers what is specific about scientific practice, rationality and method in diverse fields, what its aims are, how it is influenced by society and what kinds of social and cultural consequences it may be said to have. The objective is to stimulate students to reflect on their own and others research projects and research fields, in particular with a view to increase their ability to see and diagnose philosophical and ethical problems in the sciences as well as their consciousness of their ethical responsibility.

Methods of examination: Final **Grading:** Pass/Fail

Assessment methods: Term paper.

Curriculum: Course Readings, PHI401 and PHI402
 PHI401: Selection from below, ca. 300 pages
 PHI402: Selection from below, ca. 600 pages
 Textbook (Chapters 8 and 12 may be skipped):

Chalmers, A. What is this thing called Science?, 3rd edition, Open University Press, Buckingham, 1999.

Further material: Cartwright, N. The Dappled World. A Study of the Boundaries of Science, Cambridge University Press, Cambridge, UK, 1999, Chap. 4. Cartwright, N. Nature's Capacities and their Measurement. Clarendon Press, Oxford, 1989, Chap. 5. Caruana, Louis. 'Method.' In: Science and Virtue. An Essay on the Impact of the Scientific Mentality on Moral Character, Ashgate, Hampshire, 2006, 33-57. Collier, A. Critical Realism. An Introduction to Roy Bhaskar's Philosophy, Verso, London, 1994, Chap. 2, 31-51, Chap. 4, 107-120, Chap. 5, 137-169. Feyerabend, P. Against Method, 3rd ed., Verso, London, 1994, 'Introduction', 9-13, Parts 1-5, 14-53, and Parts 15-19, 147-251. Geertz, C. 'The Strange Estrangement: Taylor and Natural Sciences.' In: J. Tully (ed.), Philosophy in an Age of Pluralism, Cambridge University Press, Cambridge, 1994, 83-95. Gibbons, M. 'Science's New Social Contract with Society.' Nature 402/C81, 1999, 11-17. Hodgson, G. 'Biological and Physical Metaphors in Economics', in S. Maasen, E. Mendelsohn, and P. Weingart (Eds.), Biology as Society, Society as Biology: Metaphors, Kluwer, Dordrecht, 1994, 339-355. Kuhn, T. The

Structure of Scientific Revolutions, 2nd edition, University of Chicago Press, Chicago, 1970, Chaps. IX-X. Kuhn, T. 'Postscript - 1969'. In: The Structure of Scientific Revolutions, 3rd ed., University of Chicago Press, Chicago, 1996, 174-210. Maasen, S., 'Who is afraid of Metaphors?' In: S. Maasen, E. Mendelsohn, and P. Weingart (Eds.), *Biology as Society, Society as Biology: Metaphors*, Kluwer, Dordrecht, 1994, 11-35. Miller, R. W. 'Value Freedom' excerpted from 'Fact and Method in the Social Sciences.' In: Boyd, R. et al (Eds.), *The Philosophy of Science*, 1991, MIT Press, Cambridge, Mass., 744-749. Nanda, M. 'The Epistemic Charity of the Social Constructivist Critics of Science and Why the Third World Should Refuse the Offer.' In: N. Koertge (Ed.), *A House Built on Sand. Exposing Postmodernist Myths about Science*, Oxford University Press, Oxford, 1998. Penslar, R. L. *Research Ethics. Cases*

PHI402 Research Ethics and Philosophy of Science II

Forskningsetikk og vitenskapsfilosofi II

ECTS: 10 **Language:** English

Staff/institute: Terje Kvilhaug/ IØR

Teachers: Frode Kjosavik, Deborah Oughton.

Start term: Autumn parallel

Terms: Autumn parallel January block

Mandatory activities: Students must attend at least 70 % of lectures and seminars in the part that is common with PHI401 and 70 % of the additional part that is exclusive to PHI402.

Credit reduction: See PHI 401.

Type of course: Around 40-44 hours lectures + seminars/group discussions.

Contents: The contents and structure of this course are by far the same as in the course PHI 401 (see 'Contents' under PHI 401). But the course PHI 402 offers an extended study in philosophy of science especially. It should be noted that the following examples of issues to be discussed here are also ethically relevant: The relation between natural and

human sciences; science in society (science as social practice); what nature must be like for science to be possible; open and closed systems; epistemological problems in open (natural and social) systems; naturalism and its limits; the transformative model of society; laws, powers, models and idealization; reductionism and anti-reductionism in biology; problems related to the understanding of the selection entities; anti-reductionism and the developmental system-theories about onto-genesis and evolution.

Learning outcomes: Teaching goals as well as lectures, seminars and syllabus are by far the same as in the course PHI 401 (see 'Teaching goals' under PHI 401). But the course PHI 402 will, with an extended course in philosophy of science as its point of departure, give the students an opportunity to go deeper into philosophical and/or ethical issues

related to their own research projects. Through the work with a term paper related to their own projects, the students will receive a possibility to think through pressing problems of the kind.

Methods of examination: Final **Grading:** Pass/Fail

Assessment methods: Term paper.

Curriculum: Course Readings, PHI401 and PHI402 PHI401: Selection from below, ca. 300 pages PHI402: Selection from below, ca. 600 pages Textbook (Chapters 8 and 12 may be skipped): Chalmers, A. *What is this thing called Science?*, 3rd edition, Open University Press, Buckingham, 1999.

Further material: Cartwright, N. *The Dappled World. A Study of the Boundaries of Science*, Cambridge University Press, Cambridge, UK, 1999, Chap. 4. Cartwright, N. *Nature's Capacities and their Measurement*. Clarendon Press, Oxford, 1989, Chap. 5. Caruana, Louis. 'Method.' In: *Science and Virtue. An Essay on the Impact of the Scientific Mentality on Moral Character*, Ashgate, Hampshire, 2006, 33-57. Collier, A. *Critical Realism. An Introduction to Roy Bhaskar's Philosophy*, Verso, London, 1994, Chap. 2, 31-51, Chap. 4, 107-120, Chap. 5, 137-169. Feyerabend, P. *Against Method*, 3rd ed., Verso, London, 1994, 'Introduction', 9-13, Parts 1-5, 14-53, and Parts 15-19, 147-251. Geertz, C. 'The Strange Estrangement: Taylor and Natural Sciences.' In: J. Tully (ed.), *Philosophy in an Age of Pluralism*, Cambridge University Press, Cambridge, 1994, 83-95. Gibbons, M. 'Science's New Social Contract with Society.' *Nature* 402/C81, 1999, 11-17. Hodgson, G. 'Biological and Physical Metaphors in Economics', in S. Maasen, E. Mendelsohn, and P. Weingart (Eds.), *Biology as Society, Society as Biology: Metaphors*, Kluwer, Dordrecht, 1994, 339-355. Kuhn, T. *The Structure of Scientific Revolutions*, 2nd edition, University of Chicago Press, Chicago, 1970, Chaps. IX-X. Kuhn, T. 'Postscript - 1969'. In: *The Structure of Scientific Revolutions*, 3rd ed., University of Chicago Press, Chicago, 1996, 174-210. Maasen, S., 'Who is afraid of Metaphors?' In: S. Maasen, E. Mendelsohn, and P. Weingart (Eds.), *Biology as Society, Society as Biology: Metaphors*, Kluwer, Dordrecht, 1994, 11-35. Miller, R. W. 'Value Freedom' excerpted from 'Fact and Method in the Social Sciences.' In: Boyd, R. et al (Eds.), *The Philosophy of Science*, 1991, MIT Press, Cambridge, Mass., 744-749. Nanda, M. 'The Epistemic Charity of the Social Constructivist Critics of Science and Why the Third World Should Refuse the Offer.' In: N. Koertge (Ed.), *A House Built on Sand. Exposing Postmodernist Myths about Science*, Oxford University Press, Oxford, 1998. Penslar, R. L. *Research Ethics. Cases*

4.1 Overview of academic calendar autumn 2010 and spring 2011

Autumn Semester 2010

2 - 6 August: Introduction for new international students

7 - 8 August: Registration of new students

9 August: Semester starts

9 - 27 August: August block

11 August: Gras Kurs (information day for new students) 12.00 - 16.00 no classes

13 August: Matriculation in Aud Max (for new degree students) 13.00 - no classes after 12.00

13 August: Registration/withdrawal deadline for August block

30 August: Examinations for August block

31 August - 3 December: Autumn parallel period

15 September: Registration deadline for Autumn parallel

15 September: Registration deadline for thesis

30 September - 25. October: UKA i Ås 2010

6 October: Career Day 12.00 - 15.00 no classes

15 October: Registration deadline for re-examination in December (konte)

15 November: Deadline for withdrawal from master's thesis

15 November: Deadline for withdrawal from Autumn parallel

15 November: Deadline for withdrawal from re-examination in December (konte)

24 November: General Meeting for students - 12.00 - 16.00 no classes

6 - 17 December: Examination period Autumn parallel

15 December: Deadline for submission of thesis

20 and 21 December: Re-examination period

22 December - 2 January: Christmas break

Spring Semester 2011

3 January: Semester starts

3 - 21 January: January block period

9 January: Registration/withdrawal deadline for January block

24 January: Examinations for January block

25 January - 6 May: Spring parallel period

15 February: Registration deadline for Spring parallel

15 February: Registration deadline for June block

15 February: Registration deadline for thesis

15 March: Registration deadline for re-examination in May

15 April: Deadline for withdrawal from thesis

15 April: Deadline for withdrawal from Spring parallel

15 April: Deadline for withdrawal from June block

15 April: Deadline for withdrawal from re-examination in May

16 - 25 April: Easter Holiday – no classes

27 April: General Meeting for students - 12.00 - 16.00 no classes

1 May: May Day. Public holiday – no classes

7 May: "Ringfest" (celebration for graduating students)

9 - 23 May: Examination period Spring parallel

15 May: Deadline for submission of thesis

17 May: National Day. Public holiday – no classes

26 - 27 May: Re-examination period for examinations in Autumn parallel and January block

30 May - 24 June: June block period

2 June: Ascension Day. Public holiday – no classes

10, 17 and 24 June: Examination days for June block

13. June: Whit Monday. Public holiday – no classes

24 June: End of semester

Note: Democracy hour Wednesdays: 12.00 - 14.00 no classes

If the above dates fall on a Saturday, Sunday or a public holiday, dates and deadlines are postponed to the next working day. There is no teaching from the Monday after Palm Sunday until after Easter Monday; teaching starts again on the first Tuesday after Easter. There are no classes on Whit Monday