FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY

MSC-PROGRAMME IN INNOVATIVE SUSTAINABLE ENERGY ENGINEERING (MSISEE)

Term 2 *
Term 3 and 4 (2010/11)

NATURAL GAS

Ex	Subject no.	Subject title	Note	Cr
		Optional courses	1	
1v	-	EXP IN TEAM INT PROJ		7,5
1v	TEP4150	ENERGY MANAGEM/TECH	2	7,5
1v	TEP4170	HEAT/COMBUST TECH		7,5
1v	TEP4195	TURBO MACHINERY		7,5
1v	TEP4215	ENERG UTIL/PROC INT		7,5
1v	TEP4250	MULTIPHASE TRANSPORT		7,5
1v	TEP4255	HEAT PUMP PROC SYST	2	7,5
1v	TKP4150	PETROCH/OIL REFINING		7,5
1v	TMT4285	HYDROGEN TECHN		7,5
1v	TPG4135	PROC OF PETR		7,5
		Specialization courses	3	
2h	TEP4515	THERMAL ENERGY SC		7,5
2h	TEP4525	INDUS PROC TECHN SC		7,5
2h	TEP4545	ENG FLUID MECH SC		7,5
		Specialization projects	4	
2h	TEP4510	THERMAL ENERGY SP		15,0
2h	TEP4520	INDUS PROC TECHN SP		15,0
2h	TEP4540	ENG FLUID MECH SP		15,0
		Supplementary courses	5	
2h	TEP4135	ENG FLUID MECH 1		7,5
2h	TEP4165	COMP HEAT/FLUID FLOW		7,5
2h	TEP4180	EXP METH PROC ENG		7,5
2h	TEP4240	SYSTEM SIMULATION		7,5
2h	TKP4170	PROCESS DESIGN PROJ		7,5
2h	TPK4120	SAFETY RELIABILITY		7,5
		Master Thesis	6	
2v	TEP4905	INDUS PROC TECHN		30,0
2v	TEP4915	THERMAL ENERGY		30,0
2v	TEP4925	ENG FLUID MECH		30,0

Ex 1v = Term 2, Exam Spring
Ex 2h = Term 3, Exam Autumn
Ex 2v = Term 4, Master Thesis Spring

1) Optional courses must be selected to obtain a total of 30 credits in each semester.
2) The course is not considered when planning the teaching and examination schedules.
3) One specialization course must be chosen.
4) One specialization project must be chosen according to the selected specialization course.
5) Supplementary courses must be selected to obtain a total of 30 credits per semester. The courses are not considered when planning the teaching and examination schedules.
6) The master thesis must be chosen according to the selected specialization.

The Innovative and Sustainable Energy Engineering (ISEE) programme is a joint Nordic master programme between six Nordic Universities in five Nordic Countries.

* All students will start the first semester at KTH, Stockholm.

For further information see
http://www.ntnu.no/studies/msc-sustainable-energy-engineering
http://www.nordicmaster.eu/

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Term 2*
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INDUSTRIAL ECOLOGY

Ex	Subject no	Subject title	Note	Cr
		Compulsory courses		
1v	TEP4220	ENERGY/ENV CONSEQUEN		7,5
1v	TVM4160	MATERIAL FLOW ANALYS		7,5
		Optional courses	1	
1v	-	EXP IN TEAM INT PROJ		7,5
1v	TPD5100	SUSTAINABLE PD AC		7,5
1v	POL1003	ENVIRONM POLITICS		7,5
1v	SØK1101	ENVIRONM RESOURCE		7,5
		Optional courses	1	
2h	TEP4222	INPUT-OUTPUT ANALYS		7,5
2h	TEP4223	LIFE CYCLE ASSESSM		7,5
2h	TPD4505	DESIGN THEORY SC	2	7,5
2h	TPK4160	VALUE CHAIN CONTR		7,5
2h	TVM4162	INDUSTRIAL ECOLOGY		7,5
2h	KULT3304	STUDIES OF TECHN II	3	15,0
2h	POL3507	POLICY ANALYSIS	3	15,0
2h	SOS3508	INST/INST DESIGN	4	15,0
		Project and thesis preparation course	5	
2h	TEP5100	INDECOL PROJECT		15,0
2h	TPD4500	PRODUCT DESIGN 9 SP	2	15,0
2h	TVM5175	INDECOL PROJECT		15,0
		Master Thesis	6	
2v	TEP4930	INDUSTRIAL ECOLOGY		30,0
2v	TPD4910	INDUSTRIAL ECOLOGY		30,0
2v	TVM4930	INDUSTRIAL ECOLOGY		30,0

Ex 1v = Term 2, Exam Spring
Ex 2h = Term 3, Exam Autumn
Ex 2v = Term 4, Master Thesis Spring

1) According to their disciplinary background, students choose optional courses from both the list of Industrial Ecology courses and from the list of Master and PhD level courses. The combination of courses must be approved by the programme. The courses are selected so that the total weighting each term amounts to 30 credits (Cr).
2) The courses are co-requisites.
3) Course given in Norwegian only.
4) The course is taught upon availability.
5) In the first semester, students will be assigned to an academic supervisor. This supervisor guides the student through the programme. The students choose optional courses, project and thesis preparation courses according to their specialization and in agreement with their supervisors. Students choose one of the listed project courses. The courses are not considered when planning the teaching and examination schedules.
6) The master thesis must be chosen according to the selected specialization.

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