

## FACULTY OF NATURAL SCIENCES AND TECHNOLOGY

### MSC-PROGRAMME IN CHEMICAL ENGINEERING (MSCHEMENG)

Term 1 and 2

Ex	Subject no.	Subject title	Note	Cr	Comp./ Opt.
		<b>Compulsory and optional courses</b>			
1h	TKP4140	PROCESS CONTROL	1	7,5	v1
1h	TKP4155	REACTION KIN/CATALYS		7,5	v1
1h	TKP4160	TRANSPORT PHENOMENA		7,5	v1
1h	TKP4170	PROCESS DESIGN PROJ	2	7,5	v
1v	-	EXP IN TEAM INT PROJ		7,5	o
1v	TKP4115	SURFACE/COLLOID CHEM		7,5	v1
1v	TKP4130	POLYMER CHEMISTRY		7,5	v2
1v	TKP4135	CHEM PROC SYST ENG		7,5	v2
1v	TKP4145	REACTOR TECHNOLOGY		7,5	v2
1v	TKP4150	PETROCH/OIL REFINING		7,5	v2
1v	TKP4171	PROCESS DESIGN PROJ	2	7,5	v
1v	TKP4180	BIOENERG FIBER TECH	3	7,5	v2
		<b>Supplementary courses</b>	1		
1h	TBT4140	BIOCHEM ENGINEERING		7,5	v
1h	TMA4195	MATHEMATIC MODELLING		7,5	v
1h	TMA4215	NUMERIC MATHEMATICS		7,5	v
1h	TPG4105	PETROLEUM ENG BC		7,5	v
1h	TPG4140	NATURAL GAS		7,5	v
1h	TPK4120	SAFETY/RELIAB ANALYS		7,5	v
1v	KJ2053	CHROMATOGRAPHY		7,5	v
1v	TBT4125	FOOD CHEMISTRY		7,5	v
1v	TBT4130	ENVIRONM BIOTECH		7,5	v
1v	TEP4215	ENERGY AND PROCESS		7,5	v
1v	TEP4250	MULTIPHASE TRANSPORT		7,5	v
1v	TEP4265	FOOD ENGINEERING		7,5	v
1v	TKJ4175	CHEMOMETRICS		7,5	v
1v	TKP4185	NUCLEAR POWER INTRO		7,5	v
1v	TKP4190	FABR/APPL NANOMAT		7,5	v
1v	TKT4140	NUM METH COMP LAB		7,5	v
1v	TMM4175	POLYMERS/COMPOSITES		7,5	v
1v	TPG4230	FIELD DEV/OPERATIONS		7,5	v
1v	TTK4135	OPTIMISATION/CONTROL		7,5	v
1V	TVM4145	WATER/WASTE W TREATM		7,5	v

o - compulsory courses

v - optional courses

v1 - at least 3 of these 4 courses must be selected

v2 - at least 1 of these courses must be selected

Ex 1h = Term 1, Exam Autumn

Ex 1v = Term 2, Exam Spring

- 1) The courses must be selected to obtain a total of 30 credits in each semester. Supplementary courses are not considered when planning the teaching and examination schedules.
- 2) The course must be chosen either in autumn (TKP4170) or in spring (TKP4171).
- 3) The course is not considered when planning the teaching and examination schedules.

## FACULTY OF NATURAL SCIENCES AND TECHNOLOGY

### MSC-PROGRAMME IN CHEMICAL ENGINEERING (MSCHEMENG)

Term 3 and 4

Ex	Subject no.	Subject title	Note	Cr
		<b>Specialization courses</b>	1	
2h	TKP4515	CATALYS/PETROCHEM SC		7,5
2h	TKP4525	COLL/POLYMER CHEM SC		7,5
2h	TKP4535	ENVIRONM/REACT TECH SC		7,5
2h	TKP4555	PROCESS SYST ENG SC		7,5
2h	TKP4565	PULP/PAPER BIOREFIN SC		7,5
		<b>Specialization projects</b>	1	
2h	TKP4510	CATALYS/PETROCHEM SP		15,0
2h	TKP4511	CATALYS/PETROCHEM SP		7,5
2h	TKP4520	COLL/POLYMER CHEM SP		15,0
2h	TKP4521	COLL/POLYMER CHEM SP		7,5
2h	TKP4530	ENVIRONM/REACT TECH SP		15,0
2h	TKP4531	ENVIRONM/REACT TECH SP		7,5
2h	TKP4550	PROCESS SYST ENG SP		15,0
2h	TKP4551	PROCESS SYST ENG SP		7,5
2h	TKP4560	PULP/PAPER BIOREFIN SP		15,0
2h	TKP4561	PULP/PAPER BIOREFIN SP		7,5
		<b>Supplementary courses</b>	2	
2h	TBT4140	BIOCHEM ENGINEERING		7,5
2h	TKP4140	PROCESS CONTROL		7,5
2h	TKP4155	REACT KIN/CATALYSIS		7,5
2h	TKP4160	TRANSPORT PHENOMENA		7,5
2h	TMA4195	MATHEMATIC MODELLING		7,5
2h	TMA4215	NUMERIC MATHEMATICS		7,5
2h	TPG4105	PETROLEUM ENG BC		7,5
2h	TPG4140	NATURAL GAS		7,5
2h	TPK4120	SAFETY/RELIAB ANALYS		7,5
2h	TVM4145	WATER/WASTEW TREATM		7,5
		<b>Master Thesis</b>		
2v	TKP4900	CHEM PROCESS TECHN		30,0

Ex 2h = Term 3, Exam Autumn

Ex 2v = Term 4, Master Thesis Spring

- 1) One specialization course and one specialization project must be selected. The specializations are within the following five main profiles:  
 Catalysis and Petrochemistry  
 Colloid and Polymer Chemistry  
 Process Systems Engineering  
 Environmental Technology and Reactor Technology  
 Pulp & Paper and Biorefinery
- 2) 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.