

SYLLABUS

STUDY YEAR 2018/2019

Master Programme in Minerals and Metallurgical Engineering

Enrollment semester Autumn 2017

DATE

2016-10-13

DECISION MAKER

Chef utbildnings- och forskningsenheten

Programme content and structure

For a Master's degree in chemical engineering, focusing mineral engineering and process metallurgy (120 ECTS), at least 75 ECTS of the compulsory chemical engineering courses are required to be at the advanced level including a thesis of 30 ECTS in the main field. Of the 30 ECTS of elective courses, at least 15 ECTS are required at advanced level.

Swedish for beginners is offered to overseas students. The course is not included in the degree, and is read in addition to the obligatory courses

Credits

120 credits

Degree

- Degree of Master of Science (120 credits) - Major; Chemical Engineering with specialisation Minerals and Metallurgical Engineering

Entry requirements

Bachelors degree of minimum 180 ECTS with at least 60 ECTS in the area of chemistry, chemistry engineering, rock- and mineral technology, material engineering or metallurgy. At least 22,5 ECTS in Mathematics at university level and basic courses in chemistry, minerals engineering and process metallurgy is required.

Documented skills in English language.

Selection

The selection procedure is based on academic qualifications, quality and quantity aspects

Selection group

Academic: 100%

Compulsory courses

Compulsory courses 60 credits

Course code	Course	Cr	Level	Comment
L7025K	Environmental sampling and evaluation	7.5	Master's level	
M7001K	Simulation of Mineral Processing	7.5	Master's level	
M7003K	Mineral Processing	7.5	Master's level	
P7005K	Hydrometallurgy	7.5	Master's level	
P7006K	High Temperature Materials	7.5	Master's level	
P7010K	Process Metallurgy	15	Master's level	
T7011B	Mining Economy and Risk Evaluation	7.5	Master's level	

Compulsory courses 30 credits

Course code	Course	Cr	Level	Comment
X7009K	Degree Project in Chemical Engineering, specialization in Minerals and Metallurgical Engineering, master	30	Master's level	

Compulsory courses 30 credits

Selective space is 30 credits. It is mandatory to select elective courses up to the given number of credits. The given number of credits of elective courses listed must be met for degree.

Course code	Course	Cr	Level	Comment
A7001B	Landfill Technology	7.5	Master's level	Selectable
A7006B	Risk Assessment and Remediation of Contaminated Land	7.5	Master's level	Selectable
L7016K	Mine Waste	7.5	Master's level	Selectable
L7021K	Freshwater Geochemistry	7.5	Master's level	Selectable
M7005K	Senior Design Project in Mineral Processing	7.5	Master's level	Selectable
M7007K	Process mineralogy	7.5	Master's level	Selectable
O7007K	Exploration and Environmental Geophysics	7.5	Master's level	Selectable
O7018K	Exploration	7.5	Master's level	Selectable
O7019K	Petrology and regional geology	7.5	Master's level	Selectable

Course code	Course	Cr	Level	Comment
O7021K	GIS in Geoscience	7.5	Master's level	Selectable
P7007K	Senior Design Project in Processmetallurgy	7.5	Master's level	Selectable
P7009K	Design for Sustainable Processing	7.5	Master's level	Selectable
T0004T	Material Science and Engineering I	7.5	Bachelor's level	Selectable
T7001B	Fundamentals of Rock Mechanics	7.5	Master's level	Selectable
T7002T	Materials Modeling	7.5	Master's level	Selectable
T7003T	Advanced Materials Characterisation Techniques	7.5	Master's level	Selectable
T7004T	Surface Engineering	7.5	Master's level	Selectable
T7008T	Phase Transformations	7.5	Master's level	Selectable
T7012T	Composite Materials	7.5	Master's level	Selectable

Course offered outside the obligatory courses - not compulsory - For non Scandinavian students

Course code	Course	Cr	Level	Comment
S0046P	Swedish for International Students 1	3	Bachelor's level	Selectable

Study schedule

Year of study 1 Enrollment semester Autumn 2017, Is offered in 2017/2018

Study-period	Course code	Course	Cr	Comment
1	L7025K	Environmental sampling and evaluation	7.5	
1	S0046P	Swedish for International Students 1	3	Selectable
1-2	M7001K	Simulation of Mineral Processing	7.5	
1-2	M7003K	Mineral Processing	7.5	
2	T7011B	Mining Economy and Risk Evaluation	7.5	
3	M7007K	Process mineralogy	7.5	Selectable
3	O7021K	GIS in Geoscience	7.5	Selectable
3	P7005K	Hydrometallurgy	7.5	
3	T7002T	Materials Modeling	7.5	Selectable
3	T7004T	Surface Engineering	7.5	Selectable
3	T7012T	Composite Materials	7.5	Selectable
4	L7016K	Mine Waste	7.5	Selectable
4	P7006K	High Temperature Materials	7.5	
4	P7009K	Design for Sustainable Processing	7.5	Selectable
4	T7003T	Advanced Materials Characterisation Techniques	7.5	Selectable

Year of study 2 Enrollment semester Autumn 2017, Is offered in 2018/2019

Study-period	Course code	Course	Cr	Comment
1	A7006B	Risk Assessment and Remediation of Contaminated Land	7.5	Selectable
1	M7005K	Senior Design Project in Mineral Processing	7.5	Selectable
1	O7007K	Exploration and Environmental Geophysics	7.5	Selectable
1	O7018K	Exploration	7.5	Selectable
1	P7007K	Senior Design Project in Processmetallurgy	7.5	Selectable
1	T0004T	Material Science and Engineering I	7.5	Selectable
1	T7001B	Fundamentals of Rock Mechanics	7.5	Selectable
1	T7012T	Composite Materials	7.5	Selectable
1-2	P7010K	Process Metallurgy	15	
2	A7001B	Landfill Technology	7.5	Selectable
2	L7021K	Freshwater Geochemistry	7.5	Selectable
2	M7005K	Senior Design Project in Mineral Processing	7.5	Selectable
2	O7019K	Petrology and regional geology	7.5	Selectable
2	P7007K	Senior Design Project in Processmetallurgy	7.5	Selectable
2	T7008T	Phase Transformations	7.5	Selectable
3-4	X7009K	Degree Project in Chemical Engineering, specialization in Minerals and Metallurgical Engineering, master	30	