

## **SYLLABUS**

# **Degree Project in Chemical Engineering, specialization in Minerals and Metallurgical Engineering, master 30 credits X7009K**

**Examensarbete i Kemiteknik, inriktning Mineralteknik och processmetallurgi, master**

**Course syllabus admitted: Spring 2015 Sp 3 - Spring 2019 Sp 4**

**DECISION DATE  
2014-02-04**

# Degree Project in Chemical Engineering, specialization in Minerals and Metallurgical Engineering, master 30 credits X7009K

## Examensarbete i Kemiteknik, inriktning Mineralteknik och processmetallurgi, master Second cycle, X7009K

| Education level | Grade scale | Subject    | Subject group (SCB)  |
|-----------------|-------------|------------|----------------------|
| Second cycle    | U G#        | Kemiteknik | Chemical Engineering |

### Main field of study

Chemical Engineering

## Entry requirements

At least 60 credits from completed courses required for the degree. The appointed examiner decides if the student has the depth of knowledge required for the proposed degree project.

## Selection

The selection is based on 30-285 credits

## Examiner

Individual examiner appointed.

## Course Aim

The overall goal of the course is that the student practices, develops and is able to apply theory and methods to solve unstructured problems within the main area of Minerals and Metallurgical Engineering in the correct manner.

This means that on completion of the course the student is able to:

- Formulate a relevant problem for investigation from a chosen subject within the main area of study Minerals and Metallurgical Engineering.
- Apply knowledge and proficiency that has been acquired during the period of study to a complex development project or a smaller research project in an independent and systematic manner.
- Choose and justify the study method with explicit understanding of the influence of the choice on the results of the study.
- Analyse and defend the problem formulated in a scientifically correct manner, whilst lacking all the information required.
- Locate and critically review information and summarise this in a scientific manner.
- Plan, structure and execute a research or development project.
- Judge the scientific relevance of the results obtained.
- Work to a timetable.
- Express themselves well in writing and linguistically in a scientifically correct manner.
- Create and execute a presentation of the results of the project, defending the conclusions.
- Critically review the work of others in a constructive and scientific manner.

## Contents

The content of the degree project is designed in collaboration with the supervisor. The degree project always contains a theoretical foundation in the form of a literature survey that highlights the area of technology and the methodology, summarized in a scientific manner.

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The student independently plans and executes the degree project; the supervisor is available for assistance. A timetable for the entire project is included in the degree project, which is continuously reviewed.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided.

- Written presentation of individual work.

In the report the student shows the ability to:

- o Justify the chosen problem of study
- o Select and justify the study methods with explicit understanding of the influence of the methods on the results of the study
- o Collect information relevant to the problem formulation with an explicit connection to the theory and methods chosen
- o Present in writing the information collected in a relevant manner
- o Analyse and defend the formulated problem from the chosen theory and methods
- o Critically review the scientific relevance of the results obtained
- o Express themselves in writing in a correct linguistic and scientific manner.
- Oral presentation of own work
- Public discussion of the work of others
- Attendance at presentations of the degree project work of others.

## Remarks

The department provides active supervision for a period of two terms from the start of the project.

The degree project is performed individually; only in exceptional cases may at most two students carry out the degree project together.

In cases in which the degree project is carried out by two students, this shall be clearly visible in the scope and depth of the report.

## Literature. Valid from Spring 2015 Sp 3

Not set, depends on the project

## Course offered by

Department of Civil, Environmental and Natural Resources Engineering

## Items/credits

No items/credits available

## Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

## Syllabus established

by Eva Gunneriusson 2014-02-04