

**SYLLABUS**

# **Mineral Processing Technology for Technicians 7.5 credits Q0013B**

**Mineralteknik för tekniker**

**Course syllabus admitted: Spring 2019 Sp 4 - Spring 2020 Sp 4**

**DECISION DATE  
2019-01-11**

# Mineral Processing Technology for Technicians 7.5 credits Q0013B

## Mineralteknik för tekniker

### First cycle, Q0013B

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Berg- och mineralteknik	Mining and Mineral Technology

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language

## Selection

The selection is based on final school grades or Swedish Scholastic Aptitude Test.

## Examiner

Bertil Pålsson

## Course Aim

The course aims for students to acquire a basic knowledge of mechanical processing technology, including unit operations and experimental methods. After completing the course the student, should be able to:

- Carry out particle distribution measurements and present the results
- Calculate material flow
- Identify different methods of comminution and fragmentation as well as perform calculations based on known theoretical models
- Describe different methods for sizing of the particular masses
- Describe methods for sorting materials with respect to their physical and chemical properties
- Describe methods for media separation

## Contents

The course mainly covers comminution and separation methods. Comminution methods covered are crushing, sieving, milling and grading. The wet and dry separation methods covered are gravity, flotation as well as magnetic and electrical separation. In addition the course covers experimental methods for the analysis of particle size and specific surface, calculations of mass and substance distributions from fraction analysis and sampling of particle-based materials.

## Realization

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

Lectures, calculation assignments and laboratory assignments.

## 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 exam 5 credits. Written assignments 2,5 credits. The grade for the course is the same as the grade for the written exam.

## Remarks

Overlaps the course BE1008

## Literature. Valid from Autumn 2016 Sp 1

Wills B.A. & Finch J.A. (2016). Wills' Mineral Processing Technology. 8 ed. Amsterdam: Butterworth-Heinemann. ISBN 978-0-08-097053-0.

## Course offered by

Department of Civil, Environmental and Natural Resources Engineering

## Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	Written exam	G U 3 4 5	5	Mandatory	A12	
0002	Assignment reports	U G#	2.5	Mandatory	A12	

## Last revised

by Assistant Director of Undergraduate Studies Eva Gunneriusson, Department of Civil, Environmental and Natural Resources Engineering 2019-01-11

## Syllabus established

by Lars Bernspång 2012-04-03