

SYLLABUS

Steel Metallurgy 7.5 credits

P7001K

Stålmetallurgi

Course syllabus admitted: Autumn 2011 Sp 1 - Autumn 2011 Sp 1

DECISION DATE
2011-02-07

Steel Metallurgy 7.5 credits P7001K

Stålmetsallurgi

Second cycle, P7001K

Education level	Grade scale	Subject	Subject group (SCB)
Second cycle	G U 3 4 5		Chemical Engineering

Entry requirements

Essential knowledge corresponding to High temperature Processes, KGP001, and High temperature material, KGP003.

Selection

The selection is based on 30-285 credits

Examiner

Bo Björkman

Course Aim

Upon completion of this course, the student shall be able to describe iron and steelmaking processes, shall be able to understand the advantages and drawbacks connected to the different reactors used as well as the handling of by-products and recirculation on an advanced level. The student shall also demonstrate an ability to independently carry out a limited research assignment using available experimental tools to carry out experiments, to characterize materials or through thermodynamic modelling.

Contents

The course is focused on methods for and reactors used in iron and steelmaking; however the course also deals with powder metallurgy as well as the handling and use of metallurgical by-products. The course also includes industrial study trips and a major project work which is related to the industry.

Realization

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

The teaching method consists of lectures, exercises, a laboratory and a project work. The laboratory work is carried out at SSAB EMEA AB in Luleå. The results from the project work shall be presented both orally and in writing.

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 graded on a graduated scale, approved laboratory work, approved home exercises as well as approved written and oral project work. Results on home assignments are included in the result of final written exam. Students who have failed an examination on five occasions will not be allowed further resits.

Remarks

Participation at the first lecture, study trips and laboratory work are compulsory.

Overlap

The course P7001K is equal to P7010K, KGP007

Literature. Valid from Autumn 2007 Sp 1

Compendium compiled by the division of Process metallurgy.

Course offered by

Department of Civil, Environmental and Natural Resources Engineering

Items/credits

Number	Type	Credits	Grade
0001	Written exam	4.5	G U 3 4 5
0002	Laboratory work	0.8	U G#
0003	Project work	2.2	G U 3 4 5

Last revised

by Eva Gunneriusson 2011-02-07

Syllabus established

Course plan approved by the Department of Chemical Engineering and Geosciences 2007-02-28.