

## **COURSE SYLLABUS**

## Tillverkningsmetoder

## Manufacturing Methods

## 7,5 ECTS credit points (7,5 högskolepoäng)

Course code: MT1445 Educational level: First cycle Course level: G1N Field of education: Technology Subject group: Mechanical Engineering Subject area: Mechanical Engineering Version: 9 Applies from: 2014-01-01 Approved: 2013-12-18

Replaces course syllabus approved: 2009-11-01

#### 1 Course title and credit points

The course is titled Manufacturing Methods/Tillverkningsmetoder and awards 7,5 ECTS credits. One credit point (högskolepoäng) corresponds to one credit point in the European Credit Transfer System (ECTS).

#### 2 Decision and approval

This course is established by Department of Mechanical Engineering 2013-12-18. The course syllabus was revised by School of Engineering and applies from 2014-01-01. Reg.no: BTH 4.1.1-0976-2013. Replaces MT1109.

#### 3 Objectives

Manufacturing technology, which is a very broad concept, is concentrated in the course to the methods of mechanical engineering industry. The purpose is for the students to obtain a manufacturing engineering general education that a mechanical engineer needs in order to in an aware cost effectively manner participate in and head product development.

#### 4 Content

Central elements in the course are:

- Plastic machining, rolling, pressing, bending, forging, cutting, punching.
- Cutting machining, turning, milling, drilling, tool material.
- Grinding and polishing methods.

#### 5 Aims and learning outcomes

On completion of the course the student will be able to:

- •Independently use knowledge about manufacturing methods to develop products in an economical and sustainable way.
- •Conduct basic calculations for processing.
- •In an initialized way discuss manufacturing

methods with industrial engineering personnel.

• in the form of an article, in short and concise way, describe a technical subject/occurrence.

#### 6 Generic skills

#### 7 Learning and teaching

Studies are conducted as tutorials with the help of rich learning material in both forms of books and forms of tutoring in the learning management system. The dialogue between student and teacher takes place mainly via learning management system. Different components in the course are illustrated through lectures as distance tuition. For a deeper understanding, the distance exercises are spent on calculations of central parameters in manufacturing. All educational material is in Swedish and all dialogue between tutor and student is in Swedish.

# 8 Assessment and grading Examination of the course

Code Module	Credit	Grade
Assignment/Lab	5 ECTS	G-U
Written examination	2.5 ECTS	A-F

The course will be graded A Excellent, B Very good, C Good, D Satisfactory, E Sufficient, FX Fail, supplementation required, F Fail.If grade FX or UX are given, the student may after consultation with the course coordinator / examiner get an opportunity to within 6 weeks complement to grade E or G for the specific course element.

#### 9 Course evaluation

The course coordinator is responsible for systematically gathering feedback from the students in course evaluations and making sure that the results of these feed back into the development of the course.

#### 10 Prerequisites

General requirements for university studies.

#### 11 Field of education and subject area

The course is part of the field of education and is included in the subject area Mechanical Engineering.

#### 12 Restrictions regarding degree

The course cannot form part of a degree with another course, the content of which completely or partly corresponds with the contents of this course.

#### 13 Additional information

Equipment requirements: Computer with broadband connection (min 500 kbit/s). Headset and web camera.

#### 14 Course literature and other teaching material

- Hågeryd m.fl., Modern produktionsteknik del 1, Liber, ISBN 91-47-05091-8
- Material from department (accessible in course portal).

Î