



## Course syllabus

Faculty of Technology

Department of Mathematics

1MA163 Matematikens utveckling, 7,5 högskolepoäng

1MA163 The Development of Mathematics, 7.5 credits

### **Main field of study**

Mathematics

### **Subject Group**

Mathematics

### **Level of classification**

First Level

### **Progression**

G1F

### **Date of Ratification**

Approved 2009-08-11

Revised 2018-04-23 by Faculty of Technology. Removal of ECTS-grading scale and course evaluation is changed.

The course syllabus is valid from autumn semester 2018

### **Prerequisites**

1MA401 Basic Mathematics, 7.5 credits och 1MA402 Calculus I, 7.5 credits or equivalent.

## Objectives

After successfully completing the course, the student is anticipated to be able to:

- describe, in a historical perspective, the role that mathematics has played for different applications
- interpret and apply different civilization's mathematical methods for making calculations and solving problems
- interpret and communicate about the development of mathematics within a certain discipline.

## Content

The course contains:

- an overview of the development of mathematics from prehistoric times until the Middle Ages

- a more detailed exploration of how mathematics developed within the Babylonian, Egyptian, Greek, Chinese, Indian, Arabian, and the European civilizations from the middle-ages.
- a description of the interplay between mathematics and some applications, such as trade, land surveying, and natural sciences
- a deeper investigation of the mathematical development within a certain area.

### Type of Instruction

Lectures, seminars, and supervision. Compulsory assignments may be given during the course.

### Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

The student's knowledge is assessed in the form of oral and/or written examinations. There could also be a continuous examination in the form of oral and/or written reports throughout the course. The principal assessment method for the course is determined at the beginning of the course.

### Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed.

### Required Reading and Additional Study Material

#### **Required reading**

J. Thompson, *Matematiken i historien*, Studentlitteratur, 1996 or later. 300 (478) pages.

J. Thompson, *Matematiken i historien, Övningsbok*, Studentlitteratur, 1996 or later. 124 (124) pages.