Linnæus University

Course syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

1MA163 Matematikens utveckling, 7,5 högskolepoäng
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 by the Board of the School of Computer Science, Physics and Mathematics 2009-08-11

Revised 2012-08-17. Prerequisites are revised.

The course syllabus is valid from spring semester 2011

Prerequisites
Vector Geometry (1MA103)7.5 credits and Calculus II (1MA104)7.5 credits or equivalent.

Expected learning outcomes
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).
On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

The student's knowledge is assessed in the form of oral and/or written examinations. There could also be a continuous ex-amination 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
A course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The result of the course evaluation will be filed at the department.

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.