Linnæus University

Course syllabus

Faculty of Technology
Department of Mathematics

1MA441 Grundläggande matematik för dataloger, 7,5 högskolepoäng
Basic Mathematics for Computer Scientists, 7.5 credits

Main field of study
Mathematics

Subject Group
Mathematics

Level of classification
First Level

Progression
G1N

Date of Ratification
Approved 2014-10-03
Revised 2019-03-13 by Faculty of Technology. Assessment methods are revised.
The course syllabus is valid from autumn semester 2019

Prerequisites
General entry requirements and Mathematics 3c or Mathematics D (Field-specific entry
requirements 8/A8).

Objectives
After completing the course, the student should be able to solve problems, perform
calculations, and conduct lines of reasoning within the part of mathematics that is
covered by the course, and to communicate those solutions, calculations, and reasonings
in writing.

Content
Numbers, logic, set theory, algebraic expressions, equations and inequalities, elementary
functions, divisors, prime numbers, division algorithm, congruences, recurrence relations,
induction, permutations, combinations, binomial theorem, complex numbers, complex
plane, factor theorem, Linear equation systems, Gaussian elimination, matrices.

Type of Instruction
Lectures and seminars.

Examination
The course is assessed with the grades A, B, C, D, E, Fx or F.
The grade A constitutes the highest grade on the scale and the remaining grades follow
in descending order where the grade E is the lowest grade on the scale that will result in
a pass. The grade F means that the student's performance is assessed as fail (i.e.
received the grade F).

The student's knowledge is assessed in the form of a written exam.

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 at the Faculty.

Credit Overlap

The course cannot be included in a degree along with the following courses of which the content fully, or partly, corresponds to the content of this course: 1MA141 Basic Mathematics for Computer Scientists, 7.5 credits

Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Required Reading and Additional Study Material

Required reading

Carl Stitz, Jeff Zeager (2013). Precalculus. Available:http://www.stitz-zeager.com/szprecalculus07042013.pdf. 600 (1079)Material from the department