HF0009 Introduction to Mathematics 1.5 credits

Introduktionskurs i matematik

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for HF0009 valid from Autumn 2015

Grading scale

P, F

Education cycle

Pre-university level

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

Upon completing this course students should be able to:

- Simplify algebraic expressions that include powers, logarithms and trigonometric functions.
- Solve linear, quadratic and equations with square roots;
- Solve systems of linear equations
- Solve logarithmic, trigonometric and exponential equations;
- Calculate and apply derivatives
- Apply the differentiation procedures to solve extreme value problems;

Course contents

Repetition and in-depth study of upper secondary school mathematics.

- Algebraic expressions
- Powers and roots
- Linear, quadratic and equations with square roots
- Systems of linear equations
- Exponential equations
- Logarithms and logarithmic equations
- Trigonometry
- Derivatives and extreme value problems

Course literature

Program: Datateknik, elektroteknik och medicinsk teknik (högskoleingenjörer)

ENGINEERING MATHEMATICS , fourth (4TH) edition, Anthony Croft , R.Davison, M.Hargreaves , J. Flint, ISBN 9780273719779

Program: Byggteknik och design:

MATEMATIK FÖR INGENJÖRER, Staffan Rodhe, Håkan Sollervall, Studerntliteratur. Upplaga 6 (ISBN13: 9789144067964).

Examination

- RED1 - Report, 1.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

RED1 - Report, 1.5 credits, grade scale: P, F

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.