



## Mathematics and Mathematics Didactics for Upper-secondary School 7.5 cr

*Matematik och ämnesdidaktik för grundskolans senare år och gymnasieskolan 7,5 hp*

Set by Faculty of Engineering and Sustainable Development

<b>Version</b>	<b>Set at</b>	<b>Valid from</b>
	6/7/16	<b>HT2016</b>

<b>Level</b>	G1N
<b>Education level</b>	First cycle
<b>Course identifier</b>	MAG037
<b>Credits</b>	7.5 cr
<b>Main field of study</b>	Mathematics
<b>Subject group</b>	Mathematics
<b>Disciplinary domain</b>	Natural sciences 100.0 %

<b>Learning outcomes</b>	After completion of the course the student shall be able to 1. state central concepts in the mathematics of primary and lower-secondary school and upper-secondary school 2. use central concepts in the mathematics of primary and lower-secondary school and upper-secondary school 3. present the content of the mathematics of primary and lower-secondary school and upper-secondary school to make it comprehensible for pupils 4. write a plan for a teaching session based on the current reading list 5. describe solutions of problems in the mathematics of primary and lower-secondary school and upper-secondary school.
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<b>Course content</b>	Integers with arithmetical rules Rational numbers and real numbers with arithmetical rules Percent Algebra/pre-algebra and equations Calculus Geometry
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Statistics and probability theory

Other bases than ten

Problem-solving

These parts are included in the later years of primary and lower-secondary school and the courses Ma 1c and Ma 2c in upper-secondary school.

**Teaching** The teaching is given in the form of lectures, demonstration of problems, laboratory sessions, seminars and individual assignments.

**Prerequisites** General entry requirements + Mathematics 3c or Mathematics D.

**Examination** The examination is carried out through written examination and written and oral presentations. Compulsory attendance at modules 0020 and 0030.

**Grade** A, B, C, D, E, Fx, F

**Other regulations** Grading criteria are provided by the course coordinator or examiner at the beginning of the course.

**Sustainable environment** Content with sustainable development is not relevant to this course.

**Module**

0010	Written examination	5.5 cr	Grade: AF
0020	Written and Oral Presentation of a Plan for a Teaching Sess.	1 cr	Grade: UV
0030	Oral Presentation of Mathematical Problems	1 cr	Grade: UV