



HÖGSKOLAN I GÄVLE

Mathematical Concept Development for Subject Teachers 7.5 cr

Matematisk begreppsbildning för ämneslärare 7,5 hp

Set by Faculty of Engineering and Sustainable Development

Version

Set at

Valid from

5/27/19

VT2020

Level	G1F
Education level	First cycle
Course identifier	MAG328
Credits	7.5 cr
Main field of study	Mathematics
Subject group	Mathematics
Disciplinary domain	Natural sciences 100.0 %

Learning outcomes

After completion of the course the student shall be able to

1. account for current contents in mathematics courses in compulsory and upper-secondary school
2. use literature and research articles in Mathematics Education for planning and implementation of the teaching
3. evaluate their own teaching and student learning
4. account for concepts, theorems and proofs included in the school mathematics courses
5. use educational aids to illustrate mathematical concepts.

Course content

Concepts, theorems and proofs, terms, conventions and definitions in school mathematics
Using digital technologies in mathematics teaching
General problem-solving methodology
Overview of research in Mathematics Education
Analysis of scientific articles in Mathematics Education

Teaching

Lectures and seminars

Prerequisites

Mathematics 30 cr level G1N or equivalent

Examination	Written examination and written and oral presentations Module 0010 Written examination 5 cr, examines learning outcomes 4-5. Module 0020 Written and oral presentations 2.5 cr, examines learning outcomes 1-3.			
Grade	A, B, C, D, E, Fx, F			
Other regulations	Grading criteria are provided by the examiner or course coordinator at the beginning of the course.			
Sustainable environment	Content with sustainable development is not relevant to this course.			
Module	0010	Written examination	5 cr	Grade: AF
	0020	Written and oral presentations	2.5 cr	Grade: UV