Course: Mechanical Mathematics — credits: 5

Course code	WBVP24WR
Name	Mechanical Mathematics
Study year	2026-2027
ECTS credits	5
Language	Dutch, with parts in English
Coordinator	M.J. Kroes
Modes of delivery	Education
Assessments	Mathematics - Assignment Statics - Written, organised by STAD examinations

Learning outcomes

The student:

- creates a schematic representation of a real-life situation and converts it into free-body diagrams
- formulates equilibrium equations for a construction (part) and calculates the reaction forces
- solves a system of linear equations
- solves quadratic equations
- solves trigonometric, exponential, and logarithmic equations

Content

The student translates a real-life situation into a schematic representation (free-body diagram), which is used to formulate equilibrium equations. Using mathematical knowledge, the equilibrium equations are solved to calculate the reaction forces. Students work with systems of linear equations and can also solve quadratic, trigonometric, exponential, and logarithmic equations.

Included in programme(s)

Mechanical Engineering

School(s)

Engineering, Life Sciences & ICT

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