Course: Applied Mathematics — credits: 5

Course code	ELVP22AMAT
Name	Applied Mathematics
Study year	2026-2027
ECTS credits	5
Language	Dutch, with parts in English, English
Coordinator	J.M. Wilson
Modes of delivery	Problem-based learning
Assessments	Applied Mathematics - Assignment

Learning outcomes

Designing

The student considers various solution directions to arrive at a detailed and well-founded electrical engineered product/service/process based on the program of requirements, using appropriate design methodologies and taking into account societal interests and engineering standards.

Content

The student uses this technique and interprets results to solve electrotechnical problems.

The following techniques are covered:

- Differentiating: calculate derivatives of standard functions, apply linearity, product rule, quotient rule and chain rule and find extreme values/ inflection points.
- Integrating: calculate integrals of standard functions, apply linearity, integration by parts and the substitution rule and determine areas between and under curves.
- Numerical methods: find zero, approximate areas between and under curves.

Included in programme(s)

Electrical Engineering Major Mechatronics
Electrical Engineering Major Sensors & Smart Systems
Electrical Engineering Major Energy & Power Electronics

School(s)

Engineering, Life Sciences & ICT

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