COURSE DETAIL

MATHEMATICS AND SYSTEMS ANALYSIS

Country
Netherlands

Host Institution
Utrecht University

Program(s)
Utrecht University

UCEAP Course Level
Lower Division

UCEAP Subject Area(s)
Mathematics Environmental Studies

UCEAP Course Number
11

UCEAP Course Suffix

UCEAP Official Title
MATHEMATICS AND SYSTEMS ANALYSIS

UCEAP Transcript Title
MATH & SYSTM ANALYS

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

This course familiarizes students with aspects of mathematics which are of importance for Physics and Research Skills. Students learn how certain mathematical techniques can be applied. After completion of the course, the student is able to: solve simple differential equations; use several basis mathematical techniques, particularly: exponential- and square root functions, algebra, solving equations, functions, goniometry, linear algebra, differentiating and integrating; use numerical integration techniques to solve differential equations; use the basics of system analysis as a tool to solve environmental problems; formulate mathematical models for simple real-world applications; operationalize and analyze mathematical models by doing computer simulations; and qualitatively analyze and construct a model independently.

Language(s) of Instruction
English

Host Institution Course Number
GEO1-2411

Host Institution Course Title
MATHEMATICS AND SYSTEMS ANALYSIS

Host Institution Course Details
https://osiris-student.uu.nl/onderwijscatalogus/extern/cursus

Host Institution Campus
Utrecht University

Host Institution Faculty
Faculty of Geosciences

Host Institution Degree

Host Institution Department

Course Last Reviewed

2025-2026

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