

# Course Specifications

Valid in the academic year 2022-2023

6

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## Ecosystem - Atmosphere Processes (1002900)

Course size (nominal values; actual values may depend on programme)

Credits 6.0 Study time 180 h Contact hrs 56.0h

Course offerings in academic year 2022-2023

A (semester 1) English Gent

Lecturers in academic year 2022-2023

Knohl, Alexander GOTTINO1 lecturer-in-charge

Offered in the following programmes in 2022-2023 crdts offering

International Master of Science in Soils and Global Change (main subject Soil

Biogeochemistry and Global Change)

#### Teaching languages

English

Keywords

#### Position of the course

#### Contents

In this course, the students will learn about ecosystem – atmosphere processes based on real datasets from forests and other terrestrial ecosystems. The student will be exposed to a quantitative analysis of the data and will gain basic insights into land surface modelling considering land use as well as climate change. They will formulate these processes in the programming language R and describe them quantitatively.

#### Initial competences

none

## Final competences

Unterstanding the carbon and water cycle of terrestrial ecosystems requires a solid understanding of biogeophysical and biogeochemical processes at the ecosystem - atmosphere interface. These processes are directly affected by human induced alterations of the climate system such as climate change and land use.

#### Conditions for credit contract

This course unit cannot be taken via a credit contract

## Conditions for exam contract

This course unit cannot be taken via an exam contract

#### Teaching methods

Seminar, Lecture, Seminar: coached exercises

## Learning materials and price

References

### Course content-related study coaching

Assessment moments

#### Examination methods in case of periodic assessment during the first examination period

(Approved) 1

Examination methods in case of periodic assessment during the second examination period

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Calculation of the examination mark

(Approved) 2