

## Ecosystem - Atmosphere Processes (I002900)

**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

GOTTIN01

lecturer-in-charge

**Offered in the following programmes in 2022-2023**

[International Master of Science in Soils and Global Change \(main subject Soil Biogeochemistry and Global Change\)](#)

**crdts**

6

**offering**

A

**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**

Understanding 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**

**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**