

COURSE DETAIL

BIOSPHERE-ATMOSPHERE INTERACTIONS

Country

Sweden

Host Institution

Lund University

Program(s)

Lund University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Geography Environmental Studies

UCEAP Course Number

160

UCEAP Course Suffix**UCEAP Official Title**

BIOSPHERE-ATMOSPHERE INTERACTIONS

UCEAP Transcript Title

BIOSPHERE-ATMOSPHER

UCEAP Quarter Units

12.00

UCEAP Semester Units

8.00

Course Description

This course covers the processes regulating states and flows of mass and energy in the soil-vegetation-atmosphere system. The course emphasizes the energy exchange and water cycle. It also offers an in-depth overall picture of the system as well as the interactions between the various physical and biological processes. Students learn measuring techniques for relevant variables and parameters in an ecosystem. This knowledge is crucial for developing sustainable ways to manage land-based ecosystems. The course provides broad and advanced theory of the most important energy exchange processes in the interface between the atmosphere and the vegetation/land mass. In order to analyze the interplay between different processes within ecosystems, students use a simulation model of the energy exchange and the water-balance. The course also instructs students on how to use sensor technology and methods to measure and store abiotic and biotic variables and parameters using data logs and other instruments.

Language(s) of Instruction

English

Host Institution Course Number

NGEN16

Host Institution Course Title

BIOSPHERE-ATMOSPHERE INTERACTIONS

Host Institution Campus

Science

Host Institution Faculty

Host Institution Degree

Host Institution Department

Physical Geography and Ecosystem Science

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