Block course «Plant Biology», VV-11991

Duration: 6 weeks, 15 ECTS

When: first half of the fall semester; 3rd year

For whom: For Bachelor students in Biology at the University of Basel, Major in Organismal Biology and Integrative Biology

Aim of the course: during the block course “Plant Biology” you will learn fundamental experimental methods in Plant Biology. The main goal is to familiarize students with theoretical and practical methods in plant research from the cell to the plant to the ecosystem. The main focus is on the independent application of these methods in the laboratory and the field. In this way, you will learn about the research of plants and their interaction with their environment using practical examples and your own research questions.

Topics:

Ecophysiology

- Basic methods of ecophysiological research
- Energy, water and carbon balance of plants
- Plants in climate change

Stable Isotope in Plant Biology and Ecology

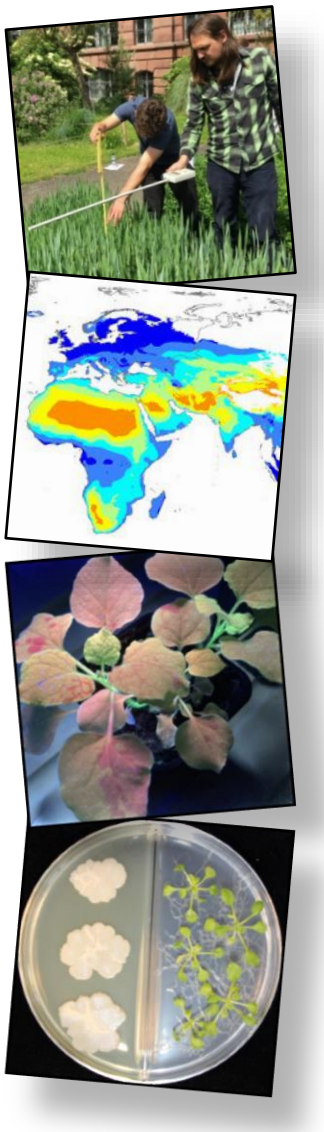
- Basics of Stable Isotope Physiology
- Natural Isotope variability to research plants in climate change
- Isotope tracers for the determination of substance flows in plants and ecosystems

Molecular Plant Biology

- Techniques in molecular biology
- Coding and information transfer in DNA, RNA and proteins
- Regulation of plant growth by phytohormones

Plant-Microbe-Interactions

- Plant viruses and RNA silencing
- Influence of rhizobacteria on plant growth
- Recognition of microorganisms by the plant's immune system



Lecturers:

Prof. Ansgar Kahmen (ansgar.kahmen@unibas.ch)
Dr. Günter Hoch (guenter.hoch@unibas.ch)
mailto:Prof. Klaus Schläppi (klaus.schlaeppi@unibas.ch)
Dr. Pascale Flury (pascale.flury@unibas.ch)

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