ENV-619

Summer School: Forests in the Anthropocene

Grossiord Charlotte, Invited lecturers (see below)

Cursus	Sem.	Type
Civil & Environmental Engineering		Opt.

Language of teaching	English
Credits	3
Session	
Exam	Oral
Workload	90h
Hours	**85**
Courses	15
Exercises	30
TP	40
Number of positions	**10**

Frequency

Every year

Remark

Next time: August 2027

Summary

The participants will reflect on their own scientific work with respect to other disciplinary methods and discuss possible benefits of interdisciplinary approach in their field. Moreover, students will further be able to learn the advanced methods used in the broad forestry field.

Content

Objectives
Forests play a vital role in our planet's health, providing numerous benefits and services to both humans and the environment. However, forests face various risks, particularly from extreme events, which can have significant impacts on their health and functioning. The risks associated with extreme events include forest fires that can cause widespread damage to wildlife habitats and vegetation, storms and wind damages that disrupt ecological processes and alter the forest structure, insect outbreaks and diseases, which causes widespread tree mortality, and global-change type droughts that disrupt the species composition and overall forest health. Mitigating these risks requires proactive forest management practices, early detection of pests and diseases, reforestation efforts and the development of climate-resilient forests.

The goal of the summer school "Forests in the Anthropocene", jointly organized with WSL and the Swiss Forest Lab, is to provide a holistic view on the risks and challenges forests will face in the future along with the solutions that can be implemented to mitigate them. The course will address different angles, including environmental issues and ecological concepts, as well as socio-economic and policy frameworks. The participants will reflect on their own scientific work with respect to other disciplinary methods and discuss possible benefits of interdisciplinary approach in their field. Moreover, students will further be able to learn the advanced methods used in the field. The course in 2024 takes place in Davos, Switzerland.

Target audience
The Summer School is open to PhD students and PostDocs in forestry research and related disciplines.

Course structure
The summer school will combine lectures by invited guests from EPFL, ETH and WSL, and field measurements. PhD students will be asked to give a presentation about their work or a poster to be presented during multiple poster sessions during the week. Several excursions will be planned as well as networking events and stakeholder dialogue.

Note

Registration: To come

Keywords

forestry, climate change, extremes, management of natural ressources

Learning Prerequisites

Required courses

Applied Ecology (ENV-422)

Learning Outcomes

By the end of the course, the student must be able to:

- Understand challenges in the management of forest ecosystems in the Anthropocene; learn methods to detect forest stress; improve skills in presentations

Resources

Bibliography

https://swissforestlab.wsl.ch/en/events-and-outreach/summer-school/2023.html

Moodle Link

- https://go.epfl.ch/ENV-619