

Course: Climate Change and Saline Soils

credits: 5

Course code	LSVX24KLIMAAT	Modes of delivery	Guest lecture
Name	Climate Change and Saline Soils		Lecture
Study year	2026-2027		Practical / Training
ECTS credits	5	Assessments	Climate Change and Saline Soils - Other assessment
Language	Dutch, with parts in English		
Coordinator	D. den Os		

Learning outcomes

You present research data obtained from field measurements, lab analysis and an experimental setup clearly through a measurement letter report and a poster.

You interpret obtained research data on soil fertility and salinization in relation to plant growth.

You provide evidence-based advice on climate-adaptive measures against soil salinization and demonstrate how this advice contributes to the Sustainable Development Goals (SDGs).

You effectively reflect on collaboration with fellow students from other life sciences disciplines.

Content

Longer periods of drought, more extreme rainfall, heat records: we experience the effects of climate change on a very regular basis. These changing weather conditions affect our Dutch soils. One of the consequences is that soils become saltier (salinization) and this has consequences for agriculture and nature.

In this elective module you will gain insight into soil hydrology and indicators of soil fertility, such as grain size, conductivity, nutrient concentrations and microbiome. In addition, you will gain knowledge about what climate change and salinization mean and their effects on plant growth and development. You will also think about climate-adaptive measures against salinization.

You will gain this knowledge during various (guest) lectures, an excursion and fieldwork during which soil samples will be taken and analyzed in the lab. The effects of salt on plant growth will be investigated in an experiment that you will conduct yourself.

Included in programme(s)

Major Medical Diagnostics
Major Biology and Medical Research
Bio-Informatics
Chemistry
Chemical Engineering

School(s)

Engineering, Life Sciences & ICT

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