Level: master

Course title: Selected parts of agrometeorology

Status: elective

ECTS: 9

Requirements: Introduction to meteorology I, Introduction to meteorology II, Meteorological observation and data assimilation

Learning objectives

Main aim of this course is to get introduce students to the basic processes included in plant-soil-atmosphere interaction. In addition, students should get practical knowledge about quantification of that interaction important for agricultural production.

Learning outcomes

Students should acquire skills that enable them to understand and predict effects of plant-soil-atmosphere interaction, important for agricultural production, by using methods of agrometeorological analysis and forecast. Students have the skill to present results of his research to other colleagues and wide audience. They are qualified to use known solutions for new problems and understand the widely used mathematical and numerical methods.

Syllabus

Microclimate-canopy feedback. Energy and water balance of canopy, plants and leafs. Weather impact on grove and plant development (photosynthesis, respiration, water assimilation). Spatial and temporal variability of climate characteristics of analyzed area. Human and natural sources of climate change. Climate and agricultural production. Impact of extreme weather conditions on agricultural production. Draught, frost and heat ways prediction and protection. UV radiation impact on plant production. Different agrometeorological models. Agrometeorological analysis and prediction.

Weekly teaching load				Other:
Lectures:	Exercises:	Other forms of	Student research:	
3	1	teaching: 1		