

<b>Level:</b> bachelor			
<b>Course title:</b> Agrometeorology			
<b>Status:</b> elective			
<b>ECTS:</b> 6			
<b>Requirements:</b> passed Introduction to Meteorology I, Introduction to Meteorology II, Meteorological observation and data processing			
<b>Learning objectives</b> The goal of this course is to introduce students to the basic processes that occur in the laws that describe the interaction of soil-plant-atmosphere. In addition, the student acquires practical knowledge in the quantification of the interaction, which is important for agricultural production.			
<b>Learning outcomes</b> The student should be able to, using the methods of agro-meteorological analysis and forecast, analyze and better predict the effects of plant-soil interactions-atmosphere important for agricultural production. Students have the ability to present the results of their own work and results from the literature to fellow-colleagues and wider audience. They gain the capability to apply known solutions to solve new problems, and to understand and master the use of the most used mathematical and numerical methods. All this qualifies them to work in scientific research institutions, agricultural institutions for monitoring and protection of the environment. Students have the ability to work independently and create a good basis for further education.			
<b>Syllabus</b> <i>Theoretical instruction</i> Feedback loop plant-controller microclimate. Energy and water balance of the plant canopy, plants and leaves. The influence of weather conditions on the growth and development of plants (photosynthesis, respiration, moisture adoption). Spatial and temporal variability of climatic characteristics of the study area. Climate change. Natural and anthropogenic causes of climate change. Climate and agricultural production. Effects of extreme weather events on agricultural production. Prediction of drought, frost and heat waves and principles of protection from the weather. Influence of UV radiation on plants. Various models of agrometeorology. Agrometeorological analysis and forecasts.			
<b>Weekly teaching load</b>			Other:
Lectures: 3	Exercises: 1	Other forms of teaching: 1	