

<b>Level:</b> PhD				
<b>Course title:</b> Environmental physics				
<b>Status:</b> elective				
<b>ECTS:</b> 15				
<b>Requirements:</b> appropriate master studies				
<b>Learning objectives</b> The course is designed to offer a detailed insight into basic processes of environmental physics. Even though the course is mostly a phenomenological one, strong mathematical background is necessary for proper understanding and further reading.				
<b>Learning outcomes</b>  After the course, PhD students should be able to: a) identify and analyze environmental problems, their causes and effects, hierarchy of processes and governing laws; b) make scientific analysis and interpretation of identified problem; c) use scientific literature and prepare different forms of scientific reports and essays; d) participate in education process; and e) organize training groups.				
<b>Syllabus</b> <i>Theoretical instruction</i> Energy balance. Applications on plants. Application on animals. Radiation laws. Solar radiation. Long wave and net radiation. Conduction and convection. Evaporation and transpiration. Energy balance of plants. Energy balance of animals. Photosynthesis. An organism temperature.  <i>Practical instruction</i> Environmental models. Setup and application.				
<b>Weekly teaching load</b>				<b>Other:</b>
<b>Lectures:</b> 4	<b>Exercises:</b>	<b>Other forms of teaching:</b>	<b>Student research:</b> 6	