

<b>Module number</b>	<b>Module name</b>	<b>Professor in charge</b>
	<b>Meteorology and Hydrology</b>	<b>Prof. Bernhofer,</b> Dr. Lennartz
<b>Contents and qualification aims</b>	<p>The class transports fundamentals on the basic processes in the atmosphere and hydrosphere. Energy budget and water budget are presented physically: radiation, precipitation, evapotranspiration and above and below ground runoff, as well as relevant storages are treated. Also climate and climatic variability are captured. Students learn to deal critically with meteorological and hydrological information (data, forecasts and consulting) and with its application for water management (planning, designing, and management of water plants).</p> <p>The student achieves knowledge on the relevant processes in atmosphere and hydrosphere, as well as on methods of observation and modelling. This implies basic principles, and includes estimation technologies for all components of the water cycle. The module is the basis for all water quantity related modules of the master course.</p>	
<b>Teaching form</b>	<p>2 hours a week, lectures, Bernhofer 2 hours a week, lectures, Lennartz</p>	
<b>Pre-requisite of attendance</b>	<p>Pre-requisite of attendance: basic knowledge in physics and mathematics Literature: <b>Oke, T.R.</b>, 1987: Boundary Layer Climates. <b>Dingman, W.L.</b>, 1994: Physical Hydrology.</p>	
<b>Usage</b>	<p>The module is a mandatory module.</p>	
<b>Pre-requisite to achieve credit points</b>	<p>The successful students have to pass two module exams. It consists of a written exam (90 minutes). It is a mandatory pre-requisite for the written exam to take part in a one day excursion.</p>	
<b>Credit points and marks</b>	<p>The module earns 5 cr. The mark is identical to the weighted mean of the written exams.</p>	
<b>Frequency of the module</b>	<p>The module is offered each winter semester.</p>	
<b>Work load</b>	<p>The student's work load is 150 hours.</p>	
<b>Duration of the module</b>	<p>The module is finished in one semester.</p>	