

<b>Level:</b> PhD				
<b>Course title:</b> Measurement and modelling of UV radiation				
<b>Status:</b> elective				
<b>ECTS:</b> 15				
<b>Requirements:</b> Master studies in physics				
<b>Learning objectives</b> Obtaining knowledge about advanced techniques for measuring and modelling UV radiation in the atmosphere. Risk estimation of influence of UV radiation on plants, animals and humans.				
<b>Learning outcomes</b> Abilities: <ul style="list-style-type: none"> <li>- Reading professional literature. Understanding the processes in the atmosphere related to UV radiation. Understanding and application of the methods of measurement and numerical approach in modelling UV radiation in the atmosphere. These abilities qualify students for working in scientific institutions important for meteorology and environmental protection.</li> </ul>				
<b>Syllabus</b> Introduction. Basic notions about UV radiation. Natural source of ultraviolet radiation – the Sun. Artificial sources of UV radiation. Ozone in the atmosphere. Eritemic spectrum of the solar UV radiation. Photometric quantities. Intensity measurements. Measurement of the intensity of UV radiation. Calibration and intercomparison of measuring instruments. Models for forecasting the UV radiation. Design of the models for forecasting the intensity of UV radiation. Legal regulations concerning the influence of UV radiation to human health.				
<b>Weekly teaching load</b>				Other:
Lectures: 4	Exercises:	Other forms of teaching:	Student research: 6	