

<b>Level:</b> master				
<b>Course title:</b> Radiation dosimetry				
<b>Status:</b> elective				
<b>ECTS:</b> 9				
<b>Requirements:</b> Contemporary Experimental Physics III, Nuclear Physics				
<b>Learning objectives</b> Radiation dosimetry course introduces students to the general principles of dosimetry and regulations in this area.				
<b>Learning outcomes</b> Students should be familiar with the concept of radiation measurement and dosimetry. Students should be qualified to take the responsibility of a dosimetrist in medicine, industry and all other areas of radiation application.				
<b>Syllabus</b> Interaction of ionizing radiation with matter (Photon interactions. Neutron interactions. Passage of charged particles through matter). Direct measurement of absorbed dose (Dose units. Calorimetric measurement of absorbed dose). Measurement of exposition. Kerma. Determination of absorbed dose (Absorbed dose in air and other materials. Conversion factors). Comparison of electron, photon and neutron dosimetry. Dosimetry methods (Ionization chamber dosimetry. Chemical, thermoluminescent and photo dosimetry. Scintillation dosimetry). Dosimetry and radiation protection (Equivalent dose. Quality factors. Effective equivalent dose).				
<b>Weekly teaching load</b>				Other:
Lectures: 3	Exercises: 1	Other forms of teaching: 1	Student research:	