

<b>Level:</b> bachelor				
<b>Course title:</b> Measurement and SI system				
<b>Status:</b> elective				
<b>ECTS:</b> 6				
<b>Requirements:</b>				
<b>Learning objectives</b>				
<ul style="list-style-type: none"> <li>-Advanced introduction of students to the development and implementation of an international system of units in science and technology.</li> <li>- Mastering the estimation errors.</li> <li>- Acquisition of knowledge and skills required in the processing of the results of physical experiments, as well as in the evaluation of the data.</li> <li>- Acquisition of basic knowledge for processing and presentation of results.</li> </ul>				
<b>Learning outcomes</b>				
Knowing the basis of analysis of physical experiments and the proper ways to display the measurement results. Qualifications for initial independent and successful implementation of statistical analysis (collection and delivery) data in the experimental work.				
<b>Syllabus</b>				
<i>Theoretical instruction</i>				
Systems of units. History of system units. International system of units. Basic and derived units. Defining the SI base units. Calculating the units. Expression of physical quantities. Standards for basic SI units. Dimensional analysis.				
Measurement. The importance of measurement. The detection limits. The uncertainty of the experimental results. Measurement error. Presentation of the results of measurements. Graphical representation of measurement results				
<i>Practical instruction</i>				
Numerical exercises follow a program of lectures.				
<b>Weekly teaching load</b>				Other:
Lectures: 3	Exercises: 1	Other forms of teaching: 1	Student research:	