

Level: bachelor				
Course title: Measurements in Mechanics				
Status: obligatory				
ECTS: 6				
Requirements: none				
Learning objectives: Research of fundamental values and their units in mechanics, with measurement and data analysis.				
Learning outcomes: Prepare students for all kinds of experimental exercises, graphics and statistical analysis of data and computation errors of measurement.				
Syllabus <i>Theoretical instruction:</i> Research of fundamental values and their units in mechanics, with measurement and data analysis. Role of experiments in physics. Dimensional analysis. Measuring errors, graphic interpretation and statistical data processing. Method of least squares. Selected experimental exercises with emphasis on data processing. <i>Practical instruction:</i> Selected experimental exercises in Mechanics: Measurement of length. The determination of density of liquid and solid bodies. The determination of the moment of inertia by physical pendulum. The determination of the moment of inertia by the torsion pendulum. Checking of the Steiner's Theorem.				
Weekly teaching load				Other:
Lectures: 2	Exercises:	Other forms of teaching:1	Student research:	