Level : master				
Course title: Nuclear Instrumentation				
Status: elective				
ECTS: 8				
Requirements: Nuclear Physics				
Learning objectives Introducing students to the concepts of nuclear instrumentation.				
Learning outcomes Gaining knowledge about nuclear instrumentation, which is applied in the research field of nuclear physics.				
Syllabus The pulse signals in nuclear electronics. (Terminology. Analog and digital signals. Fast and slow signals). NIM Standard (Modules. NIM bins for power supply.) Signal transmission (Coaxial cables. Adjusting the impedance. The losses in cables and pulse distortion.) Electronics for processing of pulse signals (Preamplifiers. Amplifiers. Discriminators. Single-channel analyzers. Multi-channel analyzers. The time-amplitude converter. Scalers. Coincident units.) Computer-controlled electronics: CAMAC.				
Weekly teaching load				Other:
Lectures: 3	Exercises: 1	Other forms of teaching: 1	Student research:	