

Elective Course Description (1. Fall Semester)

Subject (English)	Introductory Courses of Experimental Research in Physics III		Semester	Fall	Day/Slot	
科目名 (日本語)	物理学実験Ⅲ					
Course Code		Course Numbering	SPH-PHY301E		Period	Oct. - Feb.
Instructor (Post)	M. YOSHIZAWA, et al, (Prof.)				Campus	
					Building	
Faculty	Faculty of Science		Credits	2	Class Room	
Class subject	Experimental Research in Physics					
Object and summary of class	Experiments are very important for development of new physics. Based on basic knowledge of physics, students experience introductory experiments of leading researches.					
Keywords	physics, experiment, basic research					
Goal of study	The goal of this program is to let students experience basic research of experimental physics.					
Contents and progress schedule of class	<p>Students are required to perform two subjects from (a) through (n) listed as below. (Subjects opened for JYPE course depend on year.).</p> <ol style="list-style-type: none"> 1. Experimental Nuclear and Particle Physics <ol style="list-style-type: none"> (a) Experimental Particle Physics (Research Center for Neutrino Science) (b) Experimental Particle Physics (Accelerator) (c) Experimental Nuclear Physics 2. Condensed Matter Experiment <ol style="list-style-type: none"> (d) Photoemission Solid-State Physics (e) Solid State Physics on Nano-Network Solids (f) Low Temperature Quantum Physics (g) Macroscopic Quantum Phenomena (h) Microscopic Research on Magnetism (i) Low-Dimensional Quantum Physics (j) Surface Physics (k) Soft Matter Biophysics (l) Solid State Photophysics (m) Solid-State Quantum Transport (n) Ultrafast Spectroscopy <p>Schedule</p> <ol style="list-style-type: none"> (1) Entry and assignment of subjects Students are requested to contact Prof. M. Yoshizawa by Email (m-yoshizawa@m.tohoku.ac.jp) for entry to the course. Assignment of the subjects is done by office considering capacity and request of the students. (2) The first subject November - December (3) The second subject December - January 					
Preparation	nothing special					
Record and evaluation method	Attendance to the experiments 50%, oral examinations and/or reports 50%					
Textbook and references	Textbook and references will be introduced by each professor.					
Self study	nothing special					
In addition						