

FACULTY:	Faculty of Technology and Education
FIELD OF STUDY:	Materials Science and Engineering
COURSE TITLE:	Methods and Techniques of Materials Testing II
LECTURER'S NAME:	dr hab. inż. Witold Gulbiński, Univ. Prof.
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ECTS POINTS FOR THE COURSE:	3
ACADEMIC YEAR:	2015/2016
SEMESTER: (W – winter, S – summer)	S
HOURS IN SEMESTER:	30
LEVEL OF THE COURSE: (1 st cycle, 2 nd cycle, 3 rd cycle)	1 st cycle
TEACHING METHOD: (lecture, laboratory, group tutorials, seminar, other-what type?)	Lecture
LANGUAGE OF INSTRUCTION:	English
ASSESSMENT METOD: (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?)	Written exam
COURSE CONTENT:	Elektron microscopy – SEM, TEM. Near field microscopy – STM, AFM. Chemical composition of materials – energy (EDS) and wave dispersive (WDS) spectroscopy. Glow Discharge Optical Emission Spectroscopy (GDOES) and Secondary Ion Mass Spectroscopy (SIMS). Methods of thermal analysis of materials – TGA, DTA, DSC. Vibrational spectroscopy – Infrared (IR) and Raman – identification of bonds and phases.
ADDITIONAL INFORMATION:	

Witold Gulbiński, 14.05.2014