

FACULTY:	<b>Institute of Technology and Education</b>
FIELD OF STUDY:	Materials Science and Engineering
<b>COURSE TITLE:</b>	<b>Methods and Techniques of Materials Testing II</b>
LECTURER'S NAME:	dr hab. inż. Witold Gulbiński, Univ. Prof.
E-MAIL ADDRESS OF THE LECTURER:	witold.gulbinski@tu.koszalin.pl
ECTS POINTS FOR THE COURSE:	3
ACADEMIC YEAR:	2014/2015
SEMESTER: (W – winter, S – summer)	S
HOURS IN SEMESTER:	30
LEVEL OF THE COURSE: (1 <sup>st</sup> cycle, 2 <sup>nd</sup> cycle, 3 <sup>rd</sup> cycle)	1 <sup>st</sup> 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