

FACULTY:	Faculty of Technology and Education
FIELD OF STUDY:	Mechatronics
ERASMUS COORDINATOR OF THE FACULTY:	Igor Maciejewski
E-MAIL ADDRESS OF THE COORDINATOR:	igor.maciejewski@tu.koszalin.pl
COURSE TITLE:	Technical mechanics
LECTURER'S NAME:	Sebastian Głowiński, Ph.D
E-MAIL ADDRESS OF THE LECTURER:	sebastian.glowinski@tu.koszalin.pl
ECTS POINTS FOR THE COURSE:	4
ACADEMIC YEAR:	2014/2015
SEMESTER: (W – winter, S – summer)	W/S
HOURS IN SEMESTER:	30+15=45
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?)	Lectures (30h) , Classes (15h)
LANGUAGE OF INSTRUCTION:	English
ASSESSMENT METOD: (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?)	Oral exam
COURSE CONTENT:	<p><u>Statics:</u> The course begins with a review of the statics of rigid bodies which includes the identification of statically indeterminate problems. Two and three dimensional statics problems will be looked into. Next, stresses and deflections in deformable components will be analyzed. In turn, the topics covered are: simple tension, compression, and shear; thin-walled pressure vessels; torsion; and bending of beams. For each topic, statically indeterminate problems are analysed and elementary considerations of strength are introduced.</p> <p><u>Kinematics and dynamics:</u> This part of course concentrates on the motion of particles, systems of particles, and rigid bodies under the action of forces and moments. Topics include the kinematics of motion in rectangular, polar, and intrinsic coordinates; relative motion analysis with multiple reference frames; and planar kinetics through the second law, work-energy method, and impulse-momentum method. Time and frequency domain solutions to first and second order equations of motion are discussed.</p>
ADDITIONAL INFORMATION:	-