

COURSE TITLE:	STRENGTH OF MATERIALS
Institute/Division:	Institute of Applied Mechanics / Faculty of Mechanical Engineering
Erasmus subject code:	06.1
Number of contact hours:	45
Course duration:	1 semester
ETCS credits:	4
Course description:	Course comprises following problems: main assumptions; generalised forces in structural members; definitions of stress, displacement and strain; experimental tests of tension and torsion; approximation of tension diagram, physical models of material; conditions of strength, carrying capacity and stability; design of sampling structural members; energy of elastic deformation; Castigliano's theorem; stiffness and compliance matrices; statically indetermined structures; Menabrei's theorem
Literature:	S.P. Timoshenko, J.M. Gere, Mechanics of materials, Van Nostrad, 1972 M. Życzkowski, Combined loadings in the theory of plasticity, PWN, 1981 J.J. Skrzypek, Plasticity and creep, Begell House, 1993
Course type:	Lectures, classes and laboratory
Assessment method:	Final exam
Prerequisites:	Physics
Primary target group:	Msc in Mechanical Engineering
Lecturer:	Artur Ganczarski, DSc.
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Deadline for application:	May 31