Course Syllabus

Academic year: 2018-2019

Institution	University of Petroşani
Faculty	Mechanical and Electrical Engineering
Field of study	Industrial engineering
Level	Bachelor
Program of study	Machine Building Technology

Course	**Strength of Materials II**
Code	2BB4OD26
Year of study (semester)	II (III)
Number of hours	70
Number of credits	4
Professor	Lecturer eng,Ph.D. RADU Daniel

No.	Topic
1.	Yielding and rapture laws; Yielding Theories
2.	Composed loadings; Composed Bending with a Tensile Axial Force, Bending and torsion in a circular cross-section
3.	Framed structures under bending; Analysis by the Forces Method; Analysis by the Displacement Method
4.	Dynamical and variable loads; Fatigue failure
5.	Impact loads: Compresion applied with shock, Bending under shock, the dynamic coefficient calculus
6.	Instability in the axial compression; Euler's problem
7.	The elasto-plastic regime: Elasto-Plastic Analysis for axial members, Bending in Elasto-Plastic Regime,
8.	An introduction in Stress measurements by T.E.R. Methods (Electro-resistive tensometry)