

[GJJ205] MATERIAL STRENGTH AND ELASTICITY

GENERAL INFORMATION

Studies	DEGREE IN MECHATRONICS ENGINEERING	Subject	?
Semester	1	Course	3
Character	COMPULSORY	Mention / Field of specialisation	
Plan	2022	Modality	Face-to-face
Credits	4,5	Hours/week	3.75
		Language	CASTELLANO/EUSKARA
		Total hours	67.5 class hours + 45 non-class hours = 112.5 total hours

PROFESSORS

MATEOS HEIS, MODESTO
ARETXABALETA RAMOS, LAURENTZI

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
PHYSICS I	(No previous knowledge required)

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GJR302 - To apply the fundamentals and principles of elasticity and resistance of materials			x	4,02
G-RTR1 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, - becoming aware of respect for human rights and fundamental rights, and analyzing and assessing the impact of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and /or avant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies with a high degree of autonomy		x		0,24
G-RTR2 - To express information, ideas and the arguments that support them in an orderly, clear and coherent manner, orally and in writing, based on quality information, self-made or obtained from different sources, using inclusive and non-discriminatory language		x		0,24
Total:				4,5

KC: Knowledge or Content / SK: Skills / AB: Abilities

CONTENTS

1. Introduction
2. Stress and strain. Introduction to design
3. Axial deformation
4. Equilibrium in beams
5. Stresses in beams
6. Torsion

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Slides of the subject	Craig Roy. R. Jr.; Mechanics of Materials; John Wiley & Sons, Inc; 3rd. Ed., 2011
Labs	Craig Roy R. Jr.; Mecánica de Materiales; CECSA ed., 2ª ed., 2002
Moodle Platform	
Video projections	
Lab practical training	