

[GBK201] BIOMECHANICS

GENERAL INFORMATION

Studies	DEGREE IN BIOMEDICAL ENGINEERING	Subject	MECHANICS
Semester	1	Course	2
Character	COMPULSORY	Mention / Field of specialisation	
Plan	2022	Modality	Face-to-face
Credits	4,5	Hours/week	3.91
		Language	CASTELLANO
		Total hours	70.45 class hours + 42.05 non-class hours = 112.5 total hours

PROFESSORS

MATEOS HEIS, MODESTO

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
PHYSICS I	(No previous knowledge required)

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GBR209 - To apply knowledge of biomechanics to problems in the field of Biomedical Engineering		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. Mechanics fundamentals
2. Stress and strain
3. Axial strain
4. Torsion
5. Bending

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	Özkaya, N.; Nordin, M.; Goldsheyder, D.; Leger, D. Fundamentals of Biomechanics; Equilibrium, Motion and Deformation. Third Edition. Springer: New York, 2012.
Class presentations	Meriam, J.L.; Kraige, L.G. Mecánica para Ingenieros; Estática. 3ª ed. Editorial Reverté: España, 1998.
Moodle Platform	Mechanics of Materials, Roy R. Craig Jr., 3rd edition, 2011, ISBN 978-0-470-48181-3, John Wiley and Sons
Technical articles	