[GBH203] CONTROL TECHNOLOGY AND ROBOTICS

GENERAL INFORMATION

Studies	DEGREE IN BIOMEDICAL ENGINEERING			**Subject**	?
Semester	1	**Course**	3	**Mention / Field of specialisation**	
Character	COMPULSORY				
Plan	2022	**Modality**	Face-to-face	**Language**	ENGLISH
Credits	6	**Hours/week**	5.54	**Total hours**	99.65 class hours + 50.35 non-class hours = **150 total hours**

PROFESSORS

AZKARATE FERNANDEZ, IGOR

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	*(No previous knowledge required)*

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GBR304 - To develop automation systems in the field of medical equipment		x		5,08
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		0,44
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		0,48
			Total:	6

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

CONTENTS

ROBOT PROGRAMMING:

Introduction to robotics.

Introduction to RobotStudio (ABB).

Definition of points and paths. Work objects.

Complex geometries.

RAPID programming: procedures, offset, variables, digital inputs and outputs.

Tools and smart components for simulation.

AUTOMATION:

Introduction to industrial automation.

Introduction to PLC.

Programming in structured text and ladder diagrams.

Virtual commissioning.

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes Topic related web quires Class presentations Video projections	Robot Modeling and Control - Mark W. Spong, Seth Hutchinson, M. Vidyasagar - Wiley - 2005 Autómatas programables SIEMENS Grafcet y Guía Gemma con TIA Portal - R. Yuste, V. Guerrero - Marcombo - 2017