

Goi Eskola Politeknikoa Escuela Politécnica

IEECTROMECHANICAL SYSTEMS CENERAL INFORMATION Studies DEGREE IN MECHATRONICS ENGINEERING Subject ? Senester 1 Curves 3 Mention / Field of specialisation Plan 2020 Modality Adapted Face-to-face Credits 6 Hours/week 5 PROFESSORS ARANA OSTOLAZA, AITOR UNAMUNO RUZ, ENEKO ELGUEZABAL LAZCANO, JON TORRES LOZANO, ASIER REOUIRED PREVIOUS KNOWLEDGE SKILLS ERECUIRED PREVIOUS KNOWLEDGE SKILLS ERECUIRED PREVIOUS KNOWLEDGE SKILLS DECISION SKILLS ERECUIRED PREVIOUS KNOWLEDGE SKILLS Colspan="2">Colspan="2" Colspan= Colspan	perior							
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RG302 They analyze the variables involved in the problem and propose actions for a stable situation.								
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Goi Eskola Politeknikoa Escuela Politécnica Superior Course: 2022 / 2023 - Course planning

CH - Class hours: 1 h. NCH - Non-class hours: 3 h. TH - Total hours: 4 h.

LEARNING ACTIVITIES			СН	NCH	ТН
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MAKE-UP MECHANISMS

Individual written and oral tests to assess technical skills of the subject

9 h.

15 h.

6 h.

procedures associated with the subjects

Course: 2022 / 2023 - Course planning

Technical skills, involvement in the project, finished work, ^{15%} obtained results, handed documentation, presentation and technical defence

CH - Class hours: 18 h. NCH - Non-class hours: 17 h. TH - Total hours: 35 h.

RGJ3306 They know, selects and sizes transmission elements based on given specifications LEARNING ACTIVITIES СН NCH ΤН 3 h. Development, writing and presentation of memorandums, reports, audiovisual material, etc. 1 h. 4 h. Relating to projects/POPBLs carried out individually or in teams 2 h. 4 h. 6 h. Practices of problem solving and real or simulated context projects Presentation of the teacher in the classroom, in participatory classes, of concepts and 8 h. 2 h. 10 h. procedures associated with the subjects 5 h. 5 h. 10 h. Individual and team exercises **EVALUATION SYSTEM** w MAKE-UP MECHANISMS Individual written and oral tests to assess technical skills of 65% Individual written and oral tests to assess technical skills of the the subject subject 20% Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices 15% Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence CH - Class hours: 18 h. NCH - Non-class hours: 12 h. TH - Total hours: 30 h.

LEARNING ACTIVITIES			СН	NCH	ТН
Development, writing and presentation of memorandums, r Relating to projects/POPBLs carried out individually or in te		idiovisual material, etc.	5 h.	4 h.	9 h.
Practices of problem solving and real or simulated context	orojects		2 h.	4 h.	6 h.
Presentation of the teacher in the classroom, in participator procedures associated with the subjects	y classes,	, of concepts and	8 h.	2 h.	10 h.
EVALUATION SYSTEM	W	MAKE-UP MECHAN	SMS		
Individual written and oral tests to assess technical skills of					
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	15%	subject			

СН

NCH

ΤН

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Course: 2022 / 2023 - Course planning

6 h. 3 h. 9 h. Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams 22 h. 6 h. 28 h. Individual study and work, tests and evaluations and check points Presentation of the teacher in the classroom, in participatory classes, of concepts and 4 h. 4 h. 8 h. procedures associated with the subjects w MAKE-UP MECHANISMS **EVALUATION SYSTEM** Individual written and oral tests to assess technical skills of 65% Individual written and oral tests to assess technical skills of the the subject subject 20% Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices Technical skills, involvement in the project, finished work, 15% obtained results, handed documentation, presentation and technical defence CH - Class hours: 32 h. NCH - Non-class hours: 13 h. TH - Total hours: 45 h.

CONTENTS

Mechanical systems

1. Overview of mechanical transmission systems2. Kinematic chain modelling3. Machine element sizing

Electric drives

1. Mechanical load types and electric drive sizing2. DC electric drives3. AC electric drives

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Topic related web quires	Peter R.N. Childs, "Mechanical design engineering Handbook"
Moodle Platform Slides of the subject	Steven R. Schmid, Bernard J. Hamrock, Bo O. Jacobson, "Fundamentals of Machine Elements"
Computer practical training	J. Fraile Mora, J. Fraile Ardanuy, "Accionamientos eléctricos"
	W. Leonhard, "Control of Electrical Drives"
	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_ln k.pl?grupo=MECATRONICA31&ejecuta=5&_ST