

[GJK104] ASSEMBLY AND COMMISSIONING OF ELECTRONIC EQUIPMENT

GENERAL INFORMATION

Studies	DEGREE IN MECHATRONICS ENGINEERING	Subject	?
Semester	2	Course	2
Character	OPTIONAL	Mention / Field of specialisation	
Plan	2020	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

ZALDIBIA GARATE, JOSEBA EDORTA

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
ELECTRICAL MACHINES	(No previous knowledge required)
ELECTRICAL POWER SYSTEMS	

SKILLS

VERIFICA SKILLS

SPECIFIC

GJCE37 - Ability to plan and prepare the assembly and commissioning of electronic equipment

GENERAL

GJCG03 - Addressing and optimising activities of assembly, commissioning, assistance and maintenance of facilities, machinery, and industrial mechatronic systems

CROSS

GJCTR2 - To be able to understand and apply knowledge to problem solving in complex work situations or specialised and professional environments calling for creative and innovative ideas, using self-developed arguments and procedures;

LEARNING RESULTS

RG201 They coordinate their work with the other members of the team, contribute in their team to the development of the tasks to be carried out and the creation of a good working climate.

LEARNING ACTIVITIES

	CH	NCH	TH
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	2 h.	1 h.	3 h.

EVALUATION SYSTEM

	W
Self-assessment	30%
Co-assessment	35%
Observation (technical capacity, attitude and participation)	35%

MAKE-UP MECHANISMS

Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

Comments: Continuous assessment. Retake is not foreseen.

CH - Class hours: 2 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 3 h.

RG202 They make decisions and assess the possible consequences of the selected alternative.

LEARNING ACTIVITIES

	CH	NCH	TH
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	2 h.	1 h.	3 h.

EVALUATION SYSTEM

	W
Observation (technical capacity, attitude and participation)	100%

MAKE-UP MECHANISMS

Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

Comments: Continuous assessment. Retake is not foreseen.

CH - Class hours: 2 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 3 h.

RG204 They define the problem, the development of the solution, as well as the conclusions in an effective way, making a correct use of the language, in writing.

LEARNING ACTIVITIES

Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

CH

2 h.

NCH

1 h.

TH

3 h.

EVALUATION SYSTEM

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

W

100%

MAKE-UP MECHANISMS

Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

Comments: Revision and correction of the written report of the semester project

CH - Class hours: 2 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 3 h.

RG205 They define the problem, the development of the solution, as well as the conclusions in an effective way, making a correct use of the language, orally.

LEARNING ACTIVITIES

Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

CH

2 h.

NCH

1 h.

TH

3 h.

EVALUATION SYSTEM

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

W

100%

MAKE-UP MECHANISMS

Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

Comments: Continuous assessment. Retake is not foreseen.

CH - Class hours: 2 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 3 h.

RGJ249 They carry out the assembly of electronic equipment along with the programming and parameterization of all their control systems.

LEARNING ACTIVITIES

Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

CH

7 h.

NCH

5 h.

TH

12 h.

Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning

2 h.

5 h.

7 h.

Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects

10 h.

5 h.

15 h.

Practical work in workshops and/or laboratories, individually and/or in teams

17 h.

11 h.

28 h.

EVALUATION SYSTEM

Reports on the completion of exercises, case studies,

W

60%

MAKE-UP MECHANISMS

Individual written and oral tests to assess technical skills of the

computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems
Individual written and/or oral tests or individual coding/programming tests

40%

subject

Comments: Final mark: written retake exam (75%) + exam (25%).
Laboratory practices will be made-up by on-going evaluation.

CH - Class hours: 36 h.

NCH - Non-class hours: 26 h.

TH - Total hours: 62 h.

RGJ250 They verify the proper functioning, ensuring the implementation of the entire system as a whole

LEARNING ACTIVITIES

CH

NCH

TH

Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

4 h.

3 h.

7 h.

Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning

2 h.

4 h.

6 h.

Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects

6 h.

3 h.

9 h.

Practical work in workshops and/or laboratories, individually and/or in teams

11,5 h.

5 h.

16,5 h.

EVALUATION SYSTEM

W

MAKE-UP MECHANISMS

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

60%

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

Individual written and/or oral tests or individual coding/programming tests

40%

Comments: Final mark: written retake exam (75%) + exam (25%).
Laboratory practices will be made-up by on-going evaluation.

CH - Class hours: 23,5 h.

NCH - Non-class hours: 15 h.

TH - Total hours: 38,5 h.

CONTENTS

1. ASSEMBLY OF INDUSTRIAL ELECTRONIC EQUIPMENT
2. EXECUTION OF ADJUSTMENT, PARAMETERIZATION AND PROGRAMMING OPERATIONS
3. VERIFICATION AND START-UP OF ELECTRONIC EQUIPMENT

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

Topic related web quires
Slides of the subject
Lab practical training
Labs
Moodle Platform

Bibliography

http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_in k.pl?grupo=MECATRONICA22&ejecuta=45&_ST