

[GJK304] OP S2. 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	2025	Modality	Face-to-face
Credits	4,5	Language	CASTELLANO/EUSKARA
		Total hours	67.5 class hours + 45 non-class hours = 112.5 total hours

2030 AGENDA GOALS



PROFESSORS

(No professor appointed)

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GJR238 - To know and apply the principles for the assembly and commissioning of electronic equipment	x			4,02
G-TR1 - 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		0,32
G-TR2 - 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		0,16
Total:				4,5

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

SECONDARY LEARNING RESULTS

2RGJ291 (2 sem) Establish the responsibilities of team members using appropriate techniques to promote their efficiency in project development (sharing resources, contributing ideas, seeking consensus, evaluating results, the process, etc.).

LEARNING ACTIVITIES

Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, 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

(No mechanisms)

Comments: Evaluación continua. No se prevé recuperación

CH - Class hours: 2 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 3 h.

2RGJ292 (2 sem) Identify and accurately explain the SDGs addressed by the project carried out.

LEARNING ACTIVITIES

Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams

CH

1 h.

NCH

1 h.

TH

2 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

100%

(No mechanisms)

CH - Class hours: 1 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 2 h.

2RGJ293 (2 sem) Correctly draft and structure the project report, using appropriate language. To do so, search for and use the appropriate sources of information.

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

2 h.

2 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

100%

(No mechanisms)

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

CH - Class hours: 2 h.

NCH - Non-class hours: 0 h.

TH - Total hours: 2 h.

2RGJ290 (2 sem) Propose the objectives and planning of a project that will enable you to acquire and/or reinforce your knowledge of technologies—which are sometimes at the cutting edge of knowledge—and define an effective learning strategy.

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

MAKE-UP MECHANISMS

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

100%

(No mechanisms)

Comments: Continuous assessment. Retake is not foreseen.

CH - Class hours: 2 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 3 h.

RGJ248 They carry out the assembly of electronic equipment along with the programming and parameterization of all their control systems.

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

7 h.

5 h.

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

W

MAKE-UP MECHANISMS

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems
Individual written and/or oral tests or individual coding/programming tests

60%
40%

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

2RGJ294 (2 sem) Give an oral presentation of the project, arguing effectively and using language correctly.

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

1 h.

NCH

1 h.

TH

2 h.

EVALUATION SYSTEM

W

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

100%

MAKE-UP MECHANISMS

(No mechanisms)

Comments: Continuous assessment. Retake is not foreseen.

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

RGJ249 They verify the proper functioning, ensuring the implementation of the entire system as a whole

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

4 h.

NCH

3 h.

TH

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

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems
Individual written and/or oral tests or individual coding/programming tests

60%

40%

MAKE-UP MECHANISMS

Individual written and/or oral tests or individual coding/programming tests
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 COMMISSIONING 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_Ink.pl?grupo=MECATRONICA22&ejecuta=45&_ST