

[GBL201] MEDICAL INSTRUMENTATION, PROSTHESES AND IMPLANTS

GENERAL INFORMATION

Studies	DEGREE IN BIOMEDICAL ENGINEERING		Subject	MEDICAL ELECTRONICS
Semester	1	Course	2	Mention / Field of specialisation
Character	COMPULSORY		Language	CASTELLANO
Plan	2022	Modality	Face-to-face	Total hours
Credits	3	Hours/week	2.36	42.5 class hours + 32.5 non-class hours = 75 total hours

2030 AGENDA GOALS



PROFESSORS

ARISTIMUÑO OSORO, PATXI XABIER

 AZPI-MIRANDA SAROBE, IÑIGO

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GBR204 - To identify the medical instruments and implants used in the healthcare field	x			2,6
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		0,16
Total:				3

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

SECONDARY LEARNING RESULTS

1RGB293 (1 sem)

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	NCH	TH
1 h.	1 h.	2 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

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems
Observation (technical capacity, attitude and participation)

CH - Class hours: 1 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 2 h.

1RGB290 (1 sem)

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	NCH	TH
1,25 h.	,75 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%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems Observation (technical capacity, attitude and participation)

CH - Class hours: 1,25 h.
NCH - Non-class hours: ,75 h.
TH - Total hours: 2 h.

RGB207 [!] *Clasifica las prótesis e implantes según la función que sustituyen y define las características funcionales de las prótesis e implantes*

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.	2 h.	6 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		9 h.	9 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	14 h.		14 h.
Carrying out visits and/or learning trips to other university centres, laboratories, companies and/or thermal power plants	1 h.	5 h.	6 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Individual written and/or oral tests or individual coding/programming tests	100%	Individual written and/or oral tests or individual coding/programming tests

CH - Class hours: 19 h.
NCH - Non-class hours: 16 h.
TH - Total hours: 35 h.

RGB208 [!] *Identifica y clasifica el instrumental médico en función de su aplicación y conoce el funcionamiento básico del instrumental médico*

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.	5 h.	9 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		5 h.	5 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	12 h.		12 h.
Carrying out exercises and solving problems individually and/or in teams	2 h.	2 h.	4 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	20%	Individual written and/or oral tests or individual coding/programming tests
Individual written and/or oral tests or individual coding/programming tests	80%	

CH - Class hours: 18 h.
NCH - Non-class hours: 12 h.
TH - Total hours: 30 h.

1RGB291 (1 sem)

LEARNING ACTIVITIES

	<i>CH</i>	<i>NCH</i>	<i>TH</i>
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	1,25 h.	,75 h.	2 h.

EVALUATION SYSTEM

	<i>W</i>
Self-assessment	25%
Co-assessment	25%
Observation (technical capacity, attitude and participation)	50%

MAKE-UP MECHANISMS

Observation (technical capacity, attitude and participation)

CH - Class hours: 1,25 h.

NCH - Non-class hours: ,75 h.

TH - Total hours: 2 h.

1RGB292 (1 sem)

LEARNING ACTIVITIES

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

EVALUATION SYSTEM

	<i>W</i>
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)

CH - Class hours: 1 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 2 h.

1RGB294 (1 sem)

LEARNING ACTIVITIES

	<i>CH</i>	<i>NCH</i>	<i>TH</i>
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	1 h.	1 h.	2 h.

EVALUATION SYSTEM

	<i>W</i>
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%

MAKE-UP MECHANISMS

Observation (technical capacity, attitude and participation)

CH - Class hours: 1 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 2 h.

CONTENTS

[!]

1. Introducción.

2. Higiene, asepsia, antisepsia.

3. Anestesia.

4. Clasificación de instrumental:

- 4.1 Tijeras.
- 4.2 Bisturí.
- 4.3 Pinza.
- 4.4 Suturas.
- 4.5 Periostio.
- 5. Laparoscopia.
- 6. Radiología intervencionista.
- 7. Prótesis.
- 8. Implantes.
- 9. Órtesis.

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

- [!] *Transparencias de la asignatura*
- [!] *Charlas de ponentes externos*
- [!] *Presentaciones en clase*
- [!] *Laboratorios*
- [!] *Plataforma Moodle*

Bibliography

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