

Course: 2024 / 2025 - Course planning



RA03 - To understand and master the basic concepts of the general laws of mechanics, and their       x       5.4         APR14 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, -       x       0.36         secoming aware of respect for human rights and fundamental rights, and analyzing and assessing the space of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and/or anant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies that high degree of autonomy       x       0.24         RR12 - To express information, ideas and the arguments that support them in an orderly, clear and x       0.24         wherent manner, orally and in writing, based on quality information, self-made or obtained from different surces, using inclusive and non-discriminatory language       Total:       6         NAEE LEARNING RESULTS       NAEE LEARNING RESULTS       6         NA101 - Knowledge and comprehension: Knowledge and understanding of mathematics and other basic sciences inherent in them ngineering speciality, at a level that allows them to acquire the other competencies of the degree.       NA104 - Analysis in engineering: The ability to analyse complex products, processes and systems in their field of study; choose and applevant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.       NA16 - Engineering projects: Ability to project, design and develop complex products (parts, components, finished products, etc.), rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and sa						5	uperior
Studies       DEGREE IN MECHANICAL ENGINEERING       Subject PHYSICS         Semester 1       Course 1       Montion / Field of specialisation       Subject PHYSICS         Plan 2022       Modality Face-to-face       Language EUSKARA       Total hours 90 class hours + 60 non-class hours = 150 to hours         2030 AGENDA GOALS       2030 AGENDA GOALS       Nours       PROFESSORS         EZKURRA MAYOR, MIKEL AZDURU NAZABAL, AITZIBER TELLERIA ARIZTIMUÑO, XUBAN       REQUIRED PREVIOUS KNOWLEDGE       Voltage         AR05 - To understand and master the basic concepts of the general laws of mechanics, and heir       X       0.38         AR05 - To understand and master the basic concepts of the general laws of mechanics, and heir ppication to solve engineering problems       X       0.38         RTR1 - To device of numanitights and fundamental rights, and analyzing and assessing the ppact of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and/or ant-gard, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies the high degree of autonomy.       0.24         NRTR - To device sind nord master the basic complex products, problems discliption and experimention, self-made or obtained from different surces, using inclusive and non-discriminatory language       0.24         AR03 - To understand and master the basic sciences inherent in them findered autonomy.       0.24         AR04 - Countert / SK: SMB / AB: Ability to snalybe complex products, proceses and systems in thein field of study; choos		[GMB301]	PHYSICS I				
Semester 1       Course 1       Mention / Fleid of Dirardor BASIC TRAINING         Production Parador BASIC TRAINING       Modality Face-to-face       Language EUSKARA         Credits 6       Hours/week 5       Total hours 90 class hours + 60 non-class hours = 150 tot hours         OUT Control International Control Internation International Control International International Internation International Control International Inte		GENERAL IN	FORMATION				
Character BASIC TRAINING       Modality Face-to-face       Language EUSKARA         Total hours 90 class hours + 60 non-class hours = 150 to       Dours         Credits 6       Hours/week 5       Total hours 90 class hours + 60 non-class hours = 150 to         Device       Dours       Dours       Dours         Device       Dours       Dours       Dours         Device       Dours       Dours       Dours       Dours       Dours         Device       Dours       Dours <t< th=""><th>Studies DEGREE IN MECH.</th><th>ANICAL ENGINEERING</th><th>Subject PHYSICS</th><th></th><th></th><th></th><th></th></t<>	Studies DEGREE IN MECH.	ANICAL ENGINEERING	Subject PHYSICS				
Indication provide management       Modality Face-to-face       Language       EUSKARA         Total hours       90 class hours + 60 non-class hours = 150 us         Device       Data Markan Markan         Device       Data Markan      <	Semester 1	Course 1					
Credits 6       Hours/week 5         Dota hours       Op class hours + 60 non-class hours = 150 to hours         Dota OGENDA COALS             Dota OGENDA COALS             Description              PACESSORS           Calculation     PACESSORS           Calculation     Calculation           Calculation     Calculation       Calculation     Calculation           Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation     Calculation       Calculation	Character BASIC TRAINING		specialisation				
Analysis of the project with the project design and develop complex products, processes and systems of the field of study; choose and agaptiving appropriate project maintension.         Analysis in engineering: The ability to effectively communicate information, ideas, problems and solutions in the field of their specially.         Analysis in engineering: The ability to effectively communicate information, ideas, problems and solutions in the field of their specially.         Analysis in engineering: The ability to effectively communicate information, ideas, problems and solutions in the field of their specially.         Analysis in engineering: The ability to effectively communicate information, ideas, and dately inderestively and approve the design.         Analysis in engineering: The ability to effectively communicate information, ideas, and the aspecting.         Analysis in engineering: The ability to effectively communicate information, ideas, and the aspecting.         Analysis in engineering: The ability to engine and develop complex products, processes and systems in the field of study; choose and appriving engineering.         Analysis in engineering: The ability to engineering inclusible way, and appriving appropriate project method.         Analysis in engineering: The ability to engineering inclusible way and appriving appropriate projects.         Analysis in engineering: The ability to engineering inclusible way and appriving appropriate project method.         Analysis in engineering: The ability to engineering inclusible way and appriving appropriate project method.         Analysis in engineering: The ability to engineering inclusible way and appriving a	Plan 2022	Modality Face-to-face	Language EUSKARA				
Procession	Credits 6	Hours/week 5		urs + 60 r	non-clas	ss hours =	= <u>150 tot</u>
PROFESSORS EXURA MAYOR, MIKE DEVENDENCESSORS EXURA MAYOR, MIKE DEVENDENCESSORS EXURA ARYOR, MIKE Subjects of Subjects required; Consolid provides subjects specific to their specially and of gradual complexity, - A A A A A A A A A A A A A A A A A A A		2030 AGEN	DA GOALS				
EZKURRA MAYOR, MIKEL AZPURU NAZABAL, ATZIBER TELLERIA ARIZTIMUÑO, XUBAN EQUINED PREVIOUS KNOWLEDGE Subjects required) Cho specific previous subjects required) (No specific previous subjects required) Cho previous knowledge required Cho previous knowledge required) Cho previous knowledge required Cho previous knowledge required A previous chore engineering problems RTR1 - To develop interdisciplinary projects specific to their specially and of gradual complexity, - A on a previous on the SDGs - to acquire and/or apply basic, advanced and/or ant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies the high degree of autonomy RTR2 - To express information, ideas and the arguments that support them in an orderly, clear and herent manner, craftly and in writing, based on quality information, self-made or obtained from different urces, using inclusive and non-discriminatory language <b>Extendedge</b> or Content / Stc Skills / AB: Abilites <b>Extendedge</b> or Content / Stc Skills / AB: Abilites Na10 4 - Engineering projects. Ability to project, design and develop complex products, processes and systems in their field of study; choose and applevant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses. Na10 4 - Engineering projects. Ability to project, design and develop complex products (parts, components, finished products, etc), rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety, wrommerkia, economic and industrial aspectexia, as well as selecting and applying appropriate p	RECEIVE 9 RECEIVERSON						
APPURE DAZABAL, AITZIBAR TELERIA ARIZTIMUÑO, XUBAN REQUIRED PREVIOUS SUBJECTS TO THE SUBJECT STATES AND		PROFE	SSORS				
DELERIA RAIZTINUÑO, VUBAU         PERUPTION CONSTRUCTION CONSTRUCTI	EZKURRA MAYOR, MIKEL						
REQUIRED PREVIOUS KNOWLEDGE         Subjects       Knowledge         (No specific previous subjects required)       (No previous knowledge required)         Interview of the special subjects required)         Note with seven subjects required         Knowledge required         Knowledge required         Knowledge required         Ko specific previous subjects required         Ko and specific previous subjects required         Ko and specific previous subjects required         Ko specific previous subjects required         Kore sets colspan="2">Kore sets specific to their speciality, and of gradual complexity, -         Kore sets colspan="2">Kore sets sets for human rights and fundamental rights, and analyzing and asseessing the proposed sol	AIZPURU NAZABAL, AITZIBER	ł					
Subjects       Knowledge         (No specific previous subjects required)       (No previous knowledge required)         Composition of the previous subjects required)       Image: Composition of the previous knowledge required)         SAM3 - To understand and master the basic concepts of the general laws of mechanics, and their       x       x       b       5-4         SR14 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, -       x       0.36         ant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake furthers studies       x       0.24         thigh degree of autonomy       RT8 - To dework in multidisciplinary teams and/or undertake furthers studies       x       0.24         therent manner, orally and in writing, based on quality information, self-made or obtained from different       x       0.24         traces, using inclusive and non-discriminatory language       Total:       6         Natol - Knowledge and comprehension: Knowledge and understanding of mathematics and other basic sciences inherent in them       non-discriminatory language         Natol - Analysis in engineering: The ability to analyse complex products, processes and systems in their field of study; choose and apievant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.         Natol - Analysis in engineering: The ability to project, design and develop complex products (parts, components, finished products, et	TELLERIA ARIZTIMUÑO, XUBA	۹N					
(No previous knowledge required)         LEARNING RESULTS         KC       SK       AB         KC       SK       AB       CTS         KC       SK       AB       CCTS         KC       SK       AB       CCTS         KC       SK       AB       CCTS         Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">KC       SK       AB       CCTS         Colspan="2">COLSPAN       Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2"		REQUIRED PREVIO	OUS KNOWLEDGE				
LEARNING RESULTS       KC       SK       AB       ECTS         RA03 - To understand and master the basic concepts of the general laws of mechanics, and their       X       5.4         plication to solve engineering problems       X       0.36         RTR 1 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, -       X       0.36         pact of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and/or       ant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies       X       0.36         tha high degree of autonomy       X       0.24       0.24         wcres, using inclusive and non-discriminatory language       Total:       6         * Knowledge or Content / SK: Skills / AB: Abilities       Total:       6         NA101 - Knowledge and comprehension: Knowledge and understanding of mathematics and other basic sciences inherent in them gineering speciality, at a level that allows them to acquire the other competencies of the degree.       NA104 - Analysis in engineering: The ability to project, design and develop complex products, processes and systems in their field of study: choose and applevant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.       NA106 - Engineering projects: Ability to project, design and develop complex products (parts, components, finished products, etc.), rocesses, and their speciality, which meet the established requirements, including awareness of the social, health and	Subject	s	Kn	owledge	)		
KC       KC       SK       AB       ECTS         RA03 - To understand and master the basic concepts of the general laws of mechanics, and their       X       5.4         pplication to solve engineering problems       X       0.36         RTR1 - To develop interdisciplinary projects specific to their specially and of gradual complexity, -       X       0.36         apact of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and/or       X       0.36         ant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies       X       0.24         herent manner, orally and in writing, based on quality information, self-made or obtained from different       X       0.24         wcrees, using inclusive and non-discriminatory language       Total:       6         X       Notel ELEARNING RESULTS       Total:       6         NA101 - Knowledge and comprehension: Knowledge and understanding of mathematics and other basic sciences inherent in them gineering projects: Ability to project, design and develop complex products, processes and systems in their field of study; choose and applievant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.       NA10 - Analysis in engineering: Knowledge of application of mathematics, equipment and tools, engineering technology and rocesses, and their speciality, which meet the established requirements, including awareness of the social, health and safety nvironmental, economic and industrial aspec	(No specific previous su	ıbjects required)	(No previous	knowledg	e requii	red)	
RA03 - To understand and master the basic concepts of the general laws of mechanics, and their       x       5.4         Application to solve engineering problems       0.36         RTR1 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, -       x       0.36         ant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies       x       0.24         RT2 - To express information, ideas and the arguments that support them in an orderly, clear and       x       0.24         Merent maner, orally and in writing, based on quality information, self-made or obtained from different       x       0.24         Merent Manner, orally and in writing, based on quality information, self-made or obtained from different       x       0.24         NAEE LEARNING RESULTS       NAEE LEARNING RESULTS       Total:       6         NAEE LARNING results, at a level that allows them to acquire the other competencies of the degree.       NA104 - Analysis in engineering: The ability to analyse complex products, processes and systems in their field of study; choose and api levant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.       NA104 - Analysis in engineering: The ability to analyse complex products (parts, components, finished products, etc.), rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety nvironmental, economic and industrial aspeciality.       NA113 - Practical application of engine		LEARNING	RESULTS				
plication to solve engineering problems RTR1 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, - x 0.36 ant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies th a high degree of autonomy RTR2 - To express information, ideas and the arguments that support them in an orderly, clear and herent manner, orally and in writing, based on quality information, self-made or obtained from different urces, using inclusive and non-discriminatory language * Knowledge or Content / SK: Skills / AE: Abilities NAEE LEARNING RESULTS NA101 - Knowledge and comprehension: Knowledge and understanding of mathematics and other basic sciences inherent in them gineering speciality, at a level that allows them to acquire the other competencies of the degree. NA104 - Analysis in engineering: The ability to analyse complex products, processes and systems in their field of study; choose and apple levant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses. NA106 - Engineering projects: Ability to project, design and develop complex products (parts, components, finished products, etc.), occesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety invironmental, economic and industrial aspects, as well as selecting and applying appropriate project methods. NA113 - Practical application of engineering: Knowledge of application of materials, equipment and tools, engineering technology and occesses, and their limitations in the field of their speciality. NA119 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, at to cooperate with both engineers and people from other disciplines. <b>ECONDARY LEARNING RESULTS</b>				КС		AB	ECTS
RTR1 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, -       x       0.36         coming aware of respect for human rights and fundamental rights, and analyzing and assessing the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and/or ant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies th a high degree of autonomy       x       0.36         RTR2 - To express information, ideas and the arguments that support them in an orderly, clear and the arguments that support them in an orderly, clear and the arguments in a support of autonomy inclusive and non-discriminatory language       x       0.24         RTR2 - To express information, ideas and the arguments that support them in an orderly, clear and the arguments in a support to a support and the arguments in a support to a support and the arguments in a support to a support and support and a support and a support and a suppo			laws of mechanics, and their		x		5,4
Total:       6         C: Knowledge or Content / SK: Skills / AB: Abilities         NATEL LEARNING RESULTS         NA101 - Knowledge and comprehension: Knowledge and understanding of mathematics and other basic sciences inherent in them geneering speciality, at a level that allows them to acquire the other competencies of the degree.         NA104 - Analysis in engineering: The ability to analyse complex products, processes and systems in their field of study; choose and applevant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.         NA106 - Engineering projects: Ability to project, design and develop complex products (parts, components, finished products, etc.), rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety nvironmental, economic and industrial aspects, as well as selecting and applying appropriate project methods.         NA113 - Practical application of engineering: Knowledge of application of materials, equipment and tools, engineering technology and rocesses, and their limitations in the field of their speciality.         NA119 - Communication and Teamwork: Ability to operate effectively communicate information, ideas, problems and solutions in the field of neigneering.         NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, nd to cooperate with both engineers and people from other disciplines.         SECONDARY LEARNING RESULTS	ant-garde, demonstrating the ability th a high degree of autonomy RTR2 - To express information, ideas wherent manner, orally and in writing,	to work in multidisciplinary team s and the arguments that suppo based on quality information, so	ns and/or undertake further studie rt them in an orderly, clear and		x		0,24
<ul> <li>NAEE LEARNING RESULTS</li> <li>NA101 - Knowledge and comprehension: Knowledge and understanding of mathematics and other basic sciences inherent in them gineering speciality, at a level that allows them to acquire the other competencies of the degree.</li> <li>NA104 - Analysis in engineering: The ability to analyse complex products, processes and systems in their field of study; choose and applevant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.</li> <li>NA106 - Engineering projects: Ability to project, design and develop complex products (parts, components, finished products, etc.), rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety nvironmental, economic and industrial aspects, as well as selecting and applying appropriate project methods.</li> <li>NA113 - Practical application of engineering: Knowledge of application of materials, equipment and tools, engineering technology and rocesses, and their limitations in the field of their speciality.</li> <li>NA119 - Communication and Teamwork: Ability to effectively communicate information, ideas, problems and solutions in the field of ngineering.</li> <li>NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, and to cooperate with both engineers and people from other disciplines.</li> <li>SECONDARY LEARNING RESULTS</li> </ul>	arces, using inclusive and non-disch	minatory language				Total:	6
<ul> <li>NA101 - Knowledge and comprehension: Knowledge and understanding of mathematics and other basic sciences inherent in them ngineering speciality, at a level that allows them to acquire the other competencies of the degree.</li> <li>NA104 - Analysis in engineering: The ability to analyse complex products, processes and systems in their field of study; choose and appelevant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.</li> <li>NA106 - Engineering projects: Ability to project, design and develop complex products (parts, components, finished products, etc.), rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety nvironmental, economic and industrial aspects, as well as selecting and applying appropriate project methods.</li> <li>NA113 - Practical application of engineering: Knowledge of application of materials, equipment and tools, engineering technology and rocesses, and their limitations in the field of their speciality.</li> <li>NA119 - Communication and Teamwork: Ability to offectively communicate information, ideas, problems and solutions in the field of ngineering and with society in general.</li> <li>NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, and to cooperate with both engineers and people from other disciplines.</li> <li>SECONDARY LEARNING RESULTS</li> </ul>	C: Knowledge or Content / SK: Skills / AB: Abi	lities					
ngineering speciality, at a level that allows them to acquire the other competencies of the degree. NA104 - Analysis in engineering: The ability to analyse complex products, processes and systems in their field of study; choose and applevant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses. NA106 - Engineering projects: Ability to project, design and develop complex products (parts, components, finished products, etc.), rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety nvironmental, economic and industrial aspects, as well as selecting and applying appropriate project methods. NA113 - Practical application of engineering: Knowledge of application of materials, equipment and tools, engineering technology and rocesses, and their limitations in the field of their speciality. NA119 - Communication and Teamwork: Ability to effectively communicate information, ideas, problems and solutions in the field of ngineering and with society in general. NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, nd to cooperate with both engineers and people from other disciplines. SECONDARY LEARNING RESULTS							
<ul> <li>Alevant analytical, calculation and experimental methods in a suitable way; and correctly interpret the results of such analyses.</li> <li>NA106 - Engineering projects: Ability to project, design and develop complex products (parts, components, finished products, etc.), rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety nvironmental, economic and industrial aspects, as well as selecting and applying appropriate project methods.</li> <li>NA113 - Practical application of engineering: Knowledge of application of materials, equipment and tools, engineering technology and rocesses, and their limitations in the field of their speciality.</li> <li>NA119 - Communication and Teamwork: Ability to effectively communicate information, ideas, problems and solutions in the field of ngineering and with society in general.</li> <li>NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, and to cooperate with both engineers and people from other disciplines.</li> <li>SECONDARY LEARNING RESULTS</li> </ul>				sic scienc	es inhe	rent in the	em
rocesses and systems of their speciality, which meet the established requirements, including awareness of the social, health and safety nvironmental, economic and industrial aspects, as well as selecting and applying appropriate project methods. NA113 - Practical application of engineering: Knowledge of application of materials, equipment and tools, engineering technology and rocesses, and their limitations in the field of their speciality. NA119 - Communication and Teamwork: Ability to effectively communicate information, ideas, problems and solutions in the field of ngineering and with society in general. NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, nd to cooperate with both engineers and people from other disciplines. SECONDARY LEARNING RESULTS	elevant analytical, calculation and exp	perimental methods in a suitable	e way; and correctly interpret the r	results of	such ar	nalyses.	
rocesses, and their limitations in the field of their speciality. NA119 - Communication and Teamwork: Ability to effectively communicate information, ideas, problems and solutions in the field of ngineering and with society in general. NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, nd to cooperate with both engineers and people from other disciplines. SECONDARY LEARNING RESULTS	rocesses and systems of their specia	ality, which meet the established	requirements, including awarene	ess of the			
ngineering and with society in general. NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, nd to cooperate with both engineers and people from other disciplines. SECONDARY LEARNING RESULTS	NA113 - Practical application of engir	neering: Knowledge of application			eering t	echnolog	y and
NA120 - Communication and Teamwork: Ability to operate effectively in domestic and international contexts, individually and as a team, and to cooperate with both engineers and people from other disciplines. SECONDARY LEARNING RESULTS			inicate information, ideas, problen	ns and so	lutions	in the field	d of
	NA120 - Communication and Teamw	ork: Ability to operate effectively		ntexts, ind	lividuall	y and as	a team,
1RGM194 (1 sem)		SECONDARY LEA	ARNING RESULTS				
1RGM194 (1 sem)							
1RGM194 (1 sem)							
	1RGM194 (1 sem)						

LEARNING ACTIVITIES		СН	NCH	тн		
Development and writing of records, reports, presentatio projects/work experience/challenges/case studies/experi individually and/or in teams		1,5 h.	1,5 h.	3 h.		
EVALUATION SYSTEM	MAKE-UP MECHANI	SMS				
Presentation and defence of exercises, case studies,	100%		(No mech			d. d
computer practical work, simulation practical work,	Comments: Continuo	us evaluation	1. Through the	meetinds wi	th the	

laboratory practical work, term projects, end of degree

tutor and the experts throughout the project, the work is channelled,





project, master's thesis, challenges and problems mistake **Comments:** Continuous evaluation. Through the meetings with the tutor and the experts throughout the project, the work is channelled, mistakes are corrected and feedback is given to overcome the project.

mistakes are corrected and feedback is given to overcome the project.

CH - Class hours: 1,5 h. NCH - Non-class hours: 1,5 h. TH - Total hours: 3 h.

LEARNING ACTIVITIES				NCH	ТН
Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin individually and/or in teams			5 h.	3 h.	8 h.
Conducting tests, giving presentations, presenting defend checkpoints	ces, taking	examinations and/or doing	2 h.		2 h.
Presentation by the teacher in the classroom, in participa procedures associated with the subjects	tory classe	es, of concepts and	15 h.		15 h.
Carrying out exercises and solving problems individually and/or in teams			5 h.	11 h.	16 h.
Self-assessment tests in a context of autonomous and co	ontinuous l	earning		4 h.	4 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISM	IS		
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	20%	Individual written and/or coding/programming tes		or individual	
Individual written and/or oral tests or individual coding/programming tests	80%				

## 1RGM192 (1 sem)

Development and writing of records, reports, presentations, projects/work experience/challenges/case studies/experime individually and/or in teams			2 h.	1 h.	3 h.
EVALUATION SYSTEM	w	MAKE-UP MECHAN	SMS		
Self-assessment	33%		(No mech	anisms)	
Co-assessment	34%	Comments: Continuo	ous evaluatio	n. Through the	meetings with t
Observation (technical capacity, attitude and participation)	33%	tutor and the experts th mistakes are corrected project.			
CH - Class hours: 2 h. ICH - Non-class hours: 1 h. TH - Total hours: 3 h.					

# 1RGM193 (1 sem)



# Goi Eskola Politeknikoa | Mondragon Unibertsitatea Course: 2024 / 2025 - Course planning



			СН	NCH	TH
Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin individually and/or in teams			1,5 h.	1,5 h.	3 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANIS	SMS		
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%		(No mech	anisms)	
H - Class hours: 1,5 h. CH - Non-class hours: 1,5 h. H - Total hours: 3 h.					
RGM190 (1 sem)					
LEARNING ACTIVITIES			СН	NCH	ТН
Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin individually and/or in teams			2 h.	1 h.	3 h.
	<b>W</b> ) 100%	MAKE-UP MECHANIS	SMS (No mech	anisms)	
Observation (technical capacity, attitude and participation <b>Comments:</b> Continuous evaluation. Through the meeting: tor and the experts throughout the project, the work is cha- istakes are corrected and feedback is given to overcome oject. <b>H - Class hours:</b> 2 h. <b>CH - Non-class hours:</b> 1 h.	) <sup>100%</sup> s with the annelled,	MAKE-UP MECHANIS	(No mech us evaluation oughout the	n. Through the project, the w	ork is channe
Observation (technical capacity, attitude and participation) <b>Comments:</b> Continuous evaluation. Through the meeting: tor and the experts throughout the project, the work is cha- istakes are corrected and feedback is given to overcome oject. <b>H - Class hours:</b> 2 h. <b>CH - Non-class hours:</b> 1 h. <b>H - Total hours:</b> 3 h. <b>RGM106</b> [!] <i>Identifica, calcula y analiza el movimiento</i>	) 100% s with the annelled, the	<b>Comments:</b> Continuou tutor and the experts thr mistakes are corrected a project.	(No mech is evaluation oughout the and feedbac	n. Through the project, the w k is given to o	ork is channe vercome the
Dbservation (technical capacity, attitude and participation <b>Comments:</b> Continuous evaluation. Through the meeting: for and the experts throughout the project, the work is cha- stakes are corrected and feedback is given to overcome oject. H - Class hours: 2 h. CH - Non-class hours: 1 h. H - Total hours: 3 h. CH 106 [!] Identifica, calcula y analiza el movimiento oducirlos	) 100% s with the annelled, the	<b>Comments:</b> Continuou tutor and the experts thr mistakes are corrected a project.	(No mech is evaluation oughout the and feedbac	n. Through the project, the w k is given to o	ork is channe vercome the
Deservation (technical capacity, attitude and participation) Comments: Continuous evaluation. Through the meeting: tor and the experts throughout the project, the work is cha- istakes are corrected and feedback is given to overcome oject. H - Class hours: 2 h. CH - Non-class hours: 1 h. H - Total hours: 3 h. CEM106 [!] Identifica, calcula y analiza el movimiento roducirlos LEARNING ACTIVITIES Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin	) 100% s with the annelled, the o de partíc	Comments: Continuou tutor and the experts the mistakes are corrected a project. ulas y sólidos, así come	(No mech us evaluation oughout the and feedbac	n. Through the project, the w k is given to o	ork is channe vercome the necesarios p
Deservation (technical capacity, attitude and participation) Comments: Continuous evaluation. Through the meeting: tor and the experts throughout the project, the work is cha- istakes are corrected and feedback is given to overcome oject. H - Class hours: 2 h. CH - Non-class hours: 1 h. 1 - Total hours: 3 h. CEMIOS [!] Identifica, calcula y analiza el movimiento roducirlos LEARNING ACTIVITIES Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin ndividually and/or in teams Conducting tests, giving presentations, presenting defenc	) 100% s with the annelled, the o de partíc	Comments: Continuou tutor and the experts the mistakes are corrected a project.	(No mech us evaluation oughout the and feedbac b los sisten <u>CH</u> 10 h.	n. Through the project, the w k is given to o nas de fuerza NCH	ork is channe vercome the necesarios p
Deservation (technical capacity, attitude and participation) Comments: Continuous evaluation. Through the meeting: tor and the experts throughout the project, the work is cha- istakes are corrected and feedback is given to overcome oject. H - Class hours: 2 h. CH - Non-class hours: 1 h. 1 - Total hours: 3 h. CEMIOS [!] Identifica, calcula y analiza el movimiento roducirlos LEARNING ACTIVITIES Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin ndividually and/or in teams Conducting tests, giving presentations, presenting defenc checkpoints Presentation by the teacher in the classroom, in participat	) 100% s with the annelled, the o de partíc	Comments: Continuou tutor and the experts the mistakes are corrected a project. ulas y sólidos, así come sual material, etc. on estigations carried out examinations and/or doin	(No mech us evaluation oughout the and feedbac b los sisten <u>CH</u> 10 h.	n. Through the project, the w k is given to o nas de fuerza NCH	ork is channe vercome the necesarios p TH 16 h.
Observation (technical capacity, attitude and participation) Comments: Continuous evaluation. Through the meeting: tor and the experts throughout the project, the work is cha- istakes are corrected and feedback is given to overcome oject. H - Class hours: 2 h. CH - Non-class hours: 1 h. H - Total hours: 3 h. CGMIOG [!] Identifica, calcula y analiza el movimiento roducirlos LEARNING ACTIVITIES Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin individually and/or in teams Conducting tests, giving presentations, presenting defenc checkpoints Presentation by the teacher in the classroom, in participat procedures associated with the subjects Carrying out exercises and solving problems individually a	) 100% s with the annelled, the o de partíc as, audiovis nental inve ess, taking tory classe	Comments: Continuou tutor and the experts the mistakes are corrected a project. ulas y sólidos, así come sual material, etc. on estigations carried out examinations and/or doin s, of concepts and eams	(No mech is evaluation oughout the and feedbac b los sisten CH 10 h. g 4 h.	n. Through the project, the w k is given to o nas de fuerza NCH	ork is channe vercome the necesarios p TH 16 h. 4 h.
Observation (technical capacity, attitude and participation) Comments: Continuous evaluation. Through the meeting- tor and the experts throughout the project, the work is cha- istakes are corrected and feedback is given to overcome oject. H - Class hours: 2 h. CH - Non-class hours: 1 h. H - Total hours: 3 h. RGM106 [!] Identifica, calcula y analiza el movimiento roducirlos LEARNING ACTIVITIES Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin individually and/or in teams Conducting tests, giving presentations, presenting defenc checkpoints Presentation by the teacher in the classroom, in participat procedures associated with the subjects Carrying out exercises and solving problems individually a Self-assessment tests in a context of autonomous and co	) 100% s with the annelled, the o de partíc as, audiovis nental inve ess, taking tory classe	Comments: Continuou tutor and the experts the mistakes are corrected a project. ulas y sólidos, así come sual material, etc. on estigations carried out examinations and/or doin s, of concepts and eams	(No mech is evaluation oughout the and feedbac o los sisten CH 10 h. g 4 h. 30 h. 10 h.	n. Through the project, the w k is given to o nas de fuerza <u>NCH</u> 6 h. 22 h.	ork is channe vercome the necesarios p TH 16 h. 4 h. 30 h. 32 h.
EVALUATION SYSTEM         Observation (technical capacity, attitude and participation, Comments: Continuous evaluation. Through the meeting: tor and the experts throughout the project, the work is charaistakes are corrected and feedback is given to overcome roject.         H - Class hours: 2 h.         CH - Non-class hours: 1 h.         H - Total hours: 3 h.         RGM106 [!] Identifica, calcula y analiza el movimiento roducirlos         Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin individually and/or in teams         Conducting tests, giving presentations, presenting defenc checkpoints         Presentation by the teacher in the classroom, in participat procedures associated with the subjects         Carrying out exercises and solving problems individually a Self-assessment tests in a context of autonomous and co         EVALUATION SYSTEM         Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	) 100% s with the annelled, the o de partíc as, audiovis nental inve ces, taking tory classe and/or in te ntinuous le	Comments: Continuou tutor and the experts the mistakes are corrected a project. ulas y sólidos, así come sual material, etc. on estigations carried out examinations and/or doin s, of concepts and earning	(No mech Is evaluation oughout the and feedbac <b>D</b> los sisten <b>CH</b> 10 h. 30 h. 10 h. SMS pr oral tests	n. Through the project, the w k is given to o nas de fuerza NCH 6 h. 22 h. 8 h.	ork is channe vercome the necesarios p TH 16 h. 4 h. 30 h. 32 h.

CH - Class hours: 54 h. NCH - Non-class hours: 36 h. TH - Total hours: 90 h.





# 1RGM191 (1 sem)

#### СН NCH ΤН LEARNING ACTIVITIES 3 h. 2 h 1 h. 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 W **EVALUATION SYSTEM** MAKE-UP MECHANISMS 33% Self-assessment (No mechanisms) Comments: Continuous evaluation. Through the meetings with the 34% Co-assessment tutor and the experts throughout the project, the work is channelled, 33% Observation (technical capacity, attitude and participation) mistakes are corrected and feedback is given to overcome the Comments: Continuous evaluation. Through the meetings with the project. tutor and the experts throughout the project, the work is channelled, mistakes are corrected and feedback is given to overcome the project. CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h.

## CONTENTS

#### 1. STATICS

1.1. Forces and moments Forces and components Moments. Moment of a couplel.2 Newton's laws Equilibrium of a particle Equilibrium of a rigid body1.3. Free body diagrams in 2D and 3D Isolating a mechanical s ystem Constraints Contact forces: normal and friction1.4. Centroid. Center of mass. Center of gravity. Distributed forces

2. KINEMATICS2.1. Motion in one dimension of a particle

Position, speed and acceleration2.2. Motion in two dimensions of a particle Tangential and normal comp onents2.3. Case studies: parabolic motion and circular motion2.4. Motion of connected particles

#### 3. KINETICS

3.1. Kinetics of particles. Newton's 2nd law3.2. Kinetics of rigid solids. Newton's 2nd law3.3. Kinetics of particles. Energy methods3.4. Kinetics of rigid solids. Energy methods

LEARNING RESOURCES AND BIBLIOGRAPHY				
Learning resources	Bibliography			
Moodle Platform	https://katalogoa.mondragon.edu/janium-bin/sumario.pl?ld=2023091			
Class presentations	9120116			
Subject notes				
Slides of the subject				