



		[GEX <u>30</u>	1] G <u>RAPI</u>	IIC EXPRESS					
		G	ENERAL IN	FORMATION					
Studies	DEGREE IN IND ENGINEERING	USTRIAL ELECTR	ONICS	Subject	GRAPHIC EX	PRESS	ION		
Semester	1	Course	1	Mention / Field of					
Character	BASIC TRAINING	3		specialisation					
Plan	2022	Modality	Face-to-face	Language	EUSKARA				
Credits	6	Hours/week	5.17	Total hours	93 class hours hours	s + 57 n	on-clas	s hours	= <u>150 tota</u>
			2030 AGEN	DA GOALS					
EXEMPTING AND STRUCTURE CONTRECTORTER									
			PROFE	SSORS					
URZELAI B	ENGOETXEA, AI	TOR							
ORTIZ DE E	ERIBE URIBARRI	EN, PELLO							
		REQUI	RED PREVI		GE				
	Subje	ects			Knov	vledge			
(No	specific previous	subjects required)		(1	Vo previous kn	owledge	e requir	red)	
			LEARNING	RESULTS					
EARNING RESU	ILTS	· · · · · · · · · · · · · · · · · · ·	- (			КС	SK	AB	ECTS
J-RAU2 - To demo hrough traditional	methods of metri	c geometry and de	s of graphic repi scriptive geome	esentation techniques	s, both puter-aided	X	x		5,4
lesign application	S								
3-RTR1 - I o developecoming aware o	op interdisciplinar	y projects specific an rights and funda	to their specialt	y and of gradual comp and analyzing and ass	plexity, - sessing the		x		0,36
mpact of the prop	osed solutions on	the SDGs - to acq	uire and/or app	y basic, advanced an	id/or				
avant-garde, demo	onstrating the abil	ity to work in multic	lisciplinary tean	ns and/or undertake fu	urther studies				
<b>3-RTR2</b> - To expre	iss information. id	eas and the aroum	ents that suppo	rt them in an orderly.	clear and		x		0,24
oherent manner,	orally and in writin	ng, based on qualit	y information, s	elf-made or obtained	from different				
sources, using incl	lusive and non-dis	scriminatory langua	ige						
								Total:	6
	tent / SK: Skills / AB:	ADIIIties							
ENACE LEARNIN	IG RESULTS	ension: Knowledge	and understan	ding of mathematics a	and other basic	scionce	es inhe	rent in th	em
ENA101 - Knowled	dde and comprehe					SUBLICE			
ENA101 - Knowlec engineering speci	ality, at a level that	at allows them to a	cquire the other	competencies of the	degree.	SCIENCE			
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EVALUATION SYSTEM	W	MAKE-UP MECHANISM	S		
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	2,5%	Presentation and defence practical work, simulation term projects, end of dear	of exerc practical ee proie	cises, case stud work, laborato ct. master's the	dies, computer ory practical wo esis, challenge
Individual written and/or oral tests or individual	92%	and problems	00 p. 0j0		oolo, onanongo
coding/programming tests		Individual written and/or o	ral tests	or individual	
Prototype / Product	5,5%	coding/programming tests	ina resu	It is continuous	s there will onl
lelivered in order to be presented to the control points If a yorks are not delivered, the grades corresponding to them v the taken into account If any work is copied or allowed to b opied, the notes corresponding to the works will not be take account PBL project grade: 30% product, 20% technical c the report and 50% individual technical defense.	all the will not en into content of	be one final recovery of the 5 at the control point must r control point: control point 2 PBL there will not be any re	checkpo etake th 25% and etake of t	bints Student e exam Fina retake 75% he individual d	ts with less tha I note of the In the project / lefense.
CH - Class hours: 52 h. ICH - Non-class hours: 33 h. 'H - Total hours: 85 h.					
1RGE190 (1 sem)					
LEARNING ACTIVITIES			сн	NCH	тн
Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated, individual	rovide solı ly and/or iı	utions to problems in n teams	2 h.	1 h.	3 h.
EVALUATION SYSTEM	w	MAKE-UP MECHANISM	2		
			5		
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. TH - Total hours: 3 h.	100%	Observation (technical ca <b>Comments:</b> Continuous a	pacity, a assessmo	ttitude and par ent.	ticipation)
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. 'H - Total hours: 3 h.	100%	Observation (technical ca Comments: Continuous a	pacity, a	ttitude and par ent.	ticipation)
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. 'H - Total hours: 3 h. IRGE191 (1 sem)	100%	Observation (technical ca Comments: Continuous a	pacity, a Issessmo	ttitude and par ent.	ticipation)
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. TH - Total hours: 3 h. IRGE191 (1 sem) LEARNING ACTIVITIES	100%	Observation (technical ca Comments: Continuous a	ch	ttitude and par ent.	ticipation)
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. 'H - Total hours: 3 h. IRGE191 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated, individuall	rovide solu	Observation (technical ca Comments: Continuous a	pacity, a issessme CH 2 h.	ttitude and par ent. 	ticipation) TH 3 h.
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. H - Total hours: 3 h. IRGE191 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated, individuall EVALUATION SYSTEM	rovide solu y and/or in W	Observation (technical ca Comments: Continuous a utions to problems in n teams MAKE-UP MECHANISMS	CH 2 h.	ttitude and par ent. 	ticipation) TH 3 h.
Observation (technical capacity, attitude and participation)         CH - Class hours: 2 h.         ICH - Non-class hours: 1 h.         'H - Total hours: 3 h.         IRGE191 (1 sem)         LEARNING ACTIVITIES         Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated, individuall         EVALUATION SYSTEM         Observation (technical capacity, attitude and participation)	rovide solu ly and/or in <u>W</u> 100%	Observation (technical ca Comments: Continuous a utions to problems in teams <u>MAKE-UP MECHANISM</u> Observation (technical ca Comments: Continuous a	CH 2 h. S pacity, a sessessmo	ttitude and par ent. NCH 1 h. ttitude and par ent.	ticipation) TH 3 h. ticipation)
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. 'H - Total hours: 3 h. IRGE191 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printer disciplinary contexts, real and/or simulated, individuall EVALUATION SYSTEM Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. 'H - Total hours: 3 h.	rovide solu ly and/or in <u>W</u> 100%	Observation (technical ca Comments: Continuous a utions to problems in teams <u>MAKE-UP MECHANISM</u> Observation (technical ca Comments: Continuous a	CH 2 h. S pacity, a ssessme	ttitude and par ent. 	ticipation) TH 3 h. ticipation)
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. 'H - Total hours: 3 h. IRGE191 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated, individuall EVALUATION SYSTEM Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. 'H - Total hours: 3 h. IRGE192 (1 sem)	rovide solu ly and/or in <u>W</u> 100%	Observation (technical ca Comments: Continuous a utions to problems in n teams <u>MAKE-UP MECHANISM</u> Observation (technical ca Comments: Continuous a	CH 2 h. Spacity, a ssessmu	ttitude and par ent. NCH 1 h. ttitude and par ent.	ticipation) TH 3 h. ticipation)
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. H - Total hours: 3 h. IRGE191 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printer disciplinary contexts, real and/or simulated, individuall EVALUATION SYSTEM Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. H - Total hours: 3 h. IRGE192 (1 sem) LEARNING ACTIVITIES	rovide solu ly and/or in <u>W</u> 100%	Diservation (technical ca Comments: Continuous a utions to problems in teams <u>MAKE-UP MECHANISM</u> Observation (technical ca Comments: Continuous a	CH	NCH	TH TH 3 h. ticipation)
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. H - Total hours: 3 h. IRGE191 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated, individuall EVALUATION SYSTEM Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. H - Total hours: 3 h. IRGE192 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated individuall	rovide solu	Deservation (technical ca Comments: Continuous a utions to problems in n teams <u>MAKE-UP MECHANISM</u> Observation (technical ca Comments: Continuous a	CH 2 h. S pacity, a sessor CH 2 h. CH 2 h.	NCH         1 h.         ttitude and parent.         number of the second parent.         NCH         1 h.         ttitude and parent.         number of the second parent of	TH         3 h.         ticipation)         TH         3 h.         TH         3 h.
Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. H - Total hours: 3 h. IRGE191 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated, individuall EVALUATION SYSTEM Observation (technical capacity, attitude and participation) CH - Class hours: 2 h. ICH - Non-class hours: 1 h. H - Total hours: 3 h. IRGE192 (1 sem) LEARNING ACTIVITIES Carrying out/resolving projects/challenges/cases, etc. to printerdisciplinary contexts, real and/or simulated, individuall EVALUATION SYSTEM Observation (technical capacity, attitude and participation)	rovide solu ly and/or in <u>W</u> 100%	Deservation (technical ca Comments: Continuous a utions to problems in n teams <u>MAKE-UP MECHANISMS</u> Observation (technical ca Comments: Continuous a Utions to problems in n teams	CH CH 2 h. S pacity, a ssessmu CH 2 h.	NCH         1 h.         ttitude and par         ncH         1 h.         NCH         1 h.         NCH         1 h.	ticipation) TH 3 h. ticipation) TH 3 h.

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Observation (technical capacity, attitude and participation) 100%

Observation (technical capacity, attitude and participation) **Comments:** Continuous assessment.

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

1RGE193 (1 sem)					
LEARNING ACTIVITIES			СН	NCH	ТН
Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experiendividually and/or in teams	ns, audiov mental inv	isual material, etc. on estigations carried out	2 h.	1 h.	3 h.
EVALUATION SYSTEM	w	MAKE-UP MECHANI	SMS		
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	Reports on the comple exercises, simulation of projects, challenges a <b>Comments:</b> - Continu the document.	etion of exer exercises, la nd problems ous assessr	cises, case stu boratory exerc nent It may b	idies, computer ises, term be asked to red
CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h.					

KCI=IUSI [!] Representa diferentes tipos de piezas res	petando I	as normas de dibujo techi	CO		
LEARNING ACTIVITIES			сн	NCH	тн
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing 5 h. 7 h. 12 h. checkpoints					
Presentation by the teacher in the classroom, in participat procedures associated with the subjects	es, of concepts and	3 h.		3 h.	
Carrying out exercises and solving problems individually a	19,5 h.	10 h.	29,5 h.		
Carrying out work experience in real environments and wr	corresponding report	3,5 h.	2 h.	5,5 h.	
EVALUATION SYSTEM	MAKE-UP MECHANISM	IS			
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory	Individual written and/or oral tests or individual coding/programming tests				
exercises, term projects, challenges and problems		Prototype / Product			
Individual written and/or oral tests or individual coding/programming tests	<b>Comments:</b> - As the learning result is continuous, there will only be one final recovery of the checkpoints Students with less than a				
Prototype / Product	5 at the control point must retake the exam Final note of the				
<b>Comments:</b> - Control point: minimum grade 5 All works delivered in order to be presented to the control points If a works are not delivered, the grades corresponding to them be taken into account If any work is copied or allowed to be copied, the potes corresponding to the works will not be taken.	must be all the will not be	control point: control point PBL there will not be any r	25% and r etake of th	etake 75% le individual d	In the project / efense.

CH - Class hours: 31 h. NCH - Non-class hours: 19 h. TH - Total hours: 50 h.

the report and 50% individual technical defense.

account. - PBL project grade: 30% product, 20% technical content of

1RGE194 (1 sem)



## Goi Eskola Politeknikoa | Mondragon Unibertsitatea

Course: 2024 / 2025 - Course planning



LEARNING ACTIVITIES			СН	NCH	ТН	
Development and writing of records, reports, presentations, audiovisual material, etc. projects/work experience/challenges/case studies/experimental investigations carried individually and/or in teams			2 h.	1 h.	3 h.	
EVALUATION SYSTEM	MAKE-UP MECHANIS	MAKE-UP MECHANISMS				
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	100%	Presentation and defe practical work, simulat term projects, end of d and problems <b>Comments:</b> - Continue	nce of exerc ion practical legree projec ous assessn	ises, case stud work, laborate ct, master's the nent.	dies, computer bry practical work, esis, challenges	
CH - Class hours: 2 h. NCH - Non-class hours: 1 h. TH - Total hours: 3 h.						
	CONT	ENTS				

1. Representation of parts1.1. Orthogonal representation and cuts1.2. Dimensioning2. Threaded joints3. To lerances (dimensional, surface, geometric)4. Mechanical elements and interpretation of assemblies5. Solid Works

LEARNING RESOURCES AND BIBLIOGRAPHY					
Learning resources	Bibliography				
Subject notes Topic related web quires Moodle Platform	Normalizacion del Dibujo tecnico. Dandidado Preciado y Francisco Jesus Moral. Editorial Donostiarra. ISBN 978847063396 Prácticas de Dibujo Técnico (Cortes y secciones). Joaquín Gonzalo. Editorial Donostiarra. ISBN 8470633163				
	Vistas y visualización de formas. Gaspar Fernández. Editorial Donostiarra. ISBN 8470633155				