

Course: 2022 / 2023 - Course planning

Goi Eskola Politeknikoa Escuela Politécnica

	GENER/	AL IN	FORMATION			
Studies DEGREE IN MECHATRON			Subject ?			
Semester 1	Course 1		Mention / Field of			
Character BASIC TRAINING			specialisation			
Plan 2020	Iodality Face-to-	face	Language CAS	STELLANO/I	EUSKARA	
	rs/week 5		Total hours 90 d			hours = <u>150 to</u>
			hou	<u>irs</u>		
	PR	ROFE	SSORS			
ITURRASPE LARREATEGUI, MARIA A	AINHOA					
FRAILE SANTAMARIA, ITZIAR						
ASEGUINOLAZA AGUIRRECHE, UNA	1					
	REQUIRED PR	REVIO	OUS KNOWLEDGE			
Subjects				Knowle	-	
(No specific previous subjects i	required)		(No pi	revious know	ledge require/	d)
		SKI	LS			
ERIFICA SKILLS						
PECIFIC						
CE01 - To be able to solve the mathematic						
ometry, differential geometry, differential ar porithms, statistics and optimisation.	nd integral calculu	is, diffe	rential and partial differen	tial equation	s, numerical n	nethods, numei
ROSS						
CTR2 - To be able to understand and apply	/ knowledge to pro	oblem s	olving in complex work si	tuations or s	pecialised and	d professional
vironments calling for creative and innovati					•	•
ASIC						
	-			high level of	autonomy.	
_CB5 - To have developed learning abilities	LEAR	NING	RESULTS	-		
CB5 - To have developed learning abilities	LEAR	NING	RESULTS	-		estimate error
CB5 - To have developed learning abilities	LEAR	NING	RESULTS	-		estimate error тн
CB5 - To have developed learning abilities RGJ111 They use differential calculus to LEARNING ACTIVITIES Development, writing and presentation of m	LEAR o solve optimisat	tion pro	RESULTS	cal approxi	mations and	
CB5 - To have developed learning abilities RGJ111 They use differential calculus to LEARNING ACTIVITIES Development, writing and presentation of m Relating to projects/POPBLs carried out incompared	LEAR o solve optimisat	NING tion pro	RESULTS	cal approxi CH 5 h.	mations and NCH 3 h.	TH 8 h.
CB5 - To have developed learning abilities RGJ111 They use differential calculus to LEARNING ACTIVITIES Development, writing and presentation of m Relating to projects/POPBLs carried out inc Individual study and work, tests and evalua	LEAR o solve optimisat	NING tion pro	RESULTS	CH 5 h. 4 h.	mations and	тн 8 h. 27 h.
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			41	01	0.1
Development, writing and presentation of memorandums, re Relating to projects/POPBLs carried out individually or in tea		udiovisual material, etc.	4 h.	2 h.	6 h.
Individual study and work, tests and evaluations and check	points		4 h.	12 h.	16 h.
Individual and team exercises			8 h.		8 h.
Individual and/or team computer simulation practice			2 h.	5 h.	7 h.
Classroom presentations of relevant concepts and procedu	res in pa	articipatory environments	17 h.		17 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANIS	MS		
Individual written and oral tests to assess technical skills of the subject		Individual written and or subject			
Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices	10%	Comments: Final mark exam (25%). Laboratory			
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	10%	made-up by on-going eva			
:H - Class hours: 35 h. I CH - Non-class hours: 19 h. ' H - Total hours: 54 h.					
e criteria established in the guide for written reports us	sing the	appropriate software.			
LEARNING ACTIVITIES			СН	NCH	ТН
Development, writing and presentation of memorandums, re Relating to projects/POPBLs carried out individually or in tea		udiovisual material, etc.	2 h.	2 h.	4 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANIS	MS		
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	Technical skills, involve results, handed docume defence Comments: Revision a semester project	entation, pr	esentation and	technical
CH - Class hours: 2 h. ICH - Non-class hours: 2 h. IH - Total hours: 4 h.					
resentation and defense of the project, considering the					
resentation and defense of the project, considering the oftware approp			nmunicatio	on guide and t	using the prope
resentation and defense of the project, considering the oftware approp	aspects	s gathered in the oral con			
resentation and defense of the project, considering the oftware approp LEARNING ACTIVITIES Development and writing of records, reports, presentations, projects/work experience/challenges/case studies/experime	aspects	s gathered in the oral con	nmunicatio	on guide and o	using the prope
LEARNING ACTIVITIES Development and writing of records, reports, presentations, projects/work experience/challenges/case studies/experime individually and/or in teams	aspects	s gathered in the oral con sual material, etc. on estigations carried out	CH 2 h.	on guide and o	using the prope
Development and writing of records, reports, presentations, projects/work experience/challenges/case studies/experime	aspects , audiovis ental inve	s gathered in the oral con	CH 2 h. MS ment in the entation, pr	NCH 2 h. • project, finish • sentation and	TH 4 h. ed work, obtaine technical

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EARNING ACTIVITIES			СН	NCH	ТН
Development, writing and presentation of memorandums, re Relating to projects/POPBLs carried out individually or in te		udiovisual material, etc.	1 h.	3 h.	4 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANIS	MS		
Fechnical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and echnical defence	100%	Technical skills, involve results, handed docume defence Comments: With the p	entation, pr	esentation and	d technical
CH - Non-class hours: 3 h.					
H - Class hours: 1 h. CH - Non-class hours: 3 h. H - Total hours: 4 h. CHJ192 They use the right methodology to find solutio ok for meaningful information to face them and propos			projects: ar	nalyse proble	ms properly,
CH - Non-class hours: 3 h. I - Total hours: 4 h. RGJ192 They use the right methodology to find solutio			projects: ar	nalyse proble	ms properly,
CH - Non-class hours: 3 h. 1 - Total hours: 4 h. CGJ192 They use the right methodology to find solutio ok for meaningful information to face them and propos LEARNING ACTIVITIES	e soluti	ons.	projects: ar	лсн	тн
CH - Non-class hours: 3 h. I - Total hours: 4 h. CGJ192 They use the right methodology to find solutio ok for meaningful information to face them and propos	e solutio	ons.			
CH - Non-class hours: 3 h. 1 - Total hours: 4 h. CJ192 They use the right methodology to find solution ok for meaningful information to face them and propose LEARNING ACTIVITIES Development, writing and presentation of memorandums, re-	e solutio	udiovisual material, etc.	<u>сн</u> MS	<u>NCH</u> 3 h.	<u>тн</u> 3 h.
CH - Non-class hours: 3 h. 1 - Total hours: 4 h. CGJ192 They use the right methodology to find solution ok for meaningful information to face them and propose LEARNING ACTIVITIES Development, writing and presentation of memorandums, re- Relating to projects/POPBLs carried out individually or in te	e solutio eports, a ams	udiovisual material, etc.	CH MS ement in the	NCH 3 h. e project, finish	TH 3 h.

CONTENTS

1. Functions and Operations

- 2. Complex numbers
- 3. Limits and Continuity
- 4. Differentiation and applications
- 5. Integration and applications

LEARNING RESOURCES AND BIBLIOGRAPHY			
Learning resources	Bibliography		
Subject notes Moodle Platform	Jon Rogawski. Cálculo, una variable. 2ª edición. Editorial Reverté, 2012. ISBN: 9788429151664		
Specific Master Software	Robert T. Smith, Roland B. Minton. Cálculo, volumen 1. 2ª edición. Editorial McGraw-Hill, 2003. ISBN: 9788448179833		
	Saturnino L. Salas, Einar Hille, Garret J. Etgen. Calculus I, 4ª edición. Editorial Reverté, 2002. ISBN: 9788429151572		
	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_ln k.pl?grupo=MECATRONICA11&ejecuta=20&_ST		