



		[MHB203] MOD	ELLIN	G AND SIMU	LATION			
		GENE	RAL INF	ORMATION				
Studies	UNIVERSITY M ENGINEERING	ASTER IN INDUSTRIAL		Subject	?			
Semester	1	Course 2		Mention / Field of	???			
Character	OPTIONAL			specialisation				
Plan	2022	Modality Face-	to-face	Language	CASTELLANC)		
Credits	3	Hours/week 2.83		Total hours	51 class hours hours	s + 24 non-clas	s hours :	= <u>75 tot</u>
			PROFES	SORS				
professor appo	ointed)	DEOLUDED						
	Out	REQUIRED	PREVIC		E ۱۲۰۰ میل	de dese		
Subjects (No specific provious subjects required)				/\	Knov	vieage owledge requir	red)	
(//(o specific previou		DNINC		io previous kii	Swiedye requir	eu)	
	ш те		KNING	RESULIS		KC SK	AB	ECT
RA19 - Knowle	dge and skills for	calculating and designing	industrial	constructions and st	uctures.	<u>x</u>		1,5
R125 - Having veloping and/or	and understandir applying ideas, o	ng knowledge providing a log strength of the second strength of the	basis or op t.	portunity to be origin	al in	x		1,5
							Total:	3
Knowledge or Cor	ntent / SK: Skills / AB	: Abilities						
	NG RESULTS	oncion: Critical knowledge	o of the her		contaxt of and	incoring and th		ECTS
errelations exis	age and comprer sting between the	knowledge of the differen	e or the bro t fields.	bad multidisciplinary	context of eng	ineering and tr	ie	0,5
A128 - Analysis	s in engineering:	Ability to conceive new pr	oducts, pro	cesses, and system	S.			0,5
A131 - Enginee oducts, etc.), pr egration of kno lustrial aspects	ering projects: Ab rocesses and sys wledge from diffe ;; to select and ap	ility to project, develop an tems with specifications d erent disciplines, and cons oply the appropriate methor	d design n efined inco ider social odologies c	ew complex products ompletely and/or with , health and safety, e or employ creativity to	s (parts, compo conflicts, whic nvironmental, develop new	onents, finishe th require the economic and project	d	0,5
ethodologies. IA136 - Researd erpret data with	ch and innovatior	n: High-level capacity and w conclusions.	ability to p	roject and carry out e	experimental in	vestigations,		1
iA144 - Prepara th limited or inc	ation of judgemer omplete informat	its: Ability to integrate knowing including reflection or	wledge and ethical an	d handle complex co id social responsibilit	ncepts and for y related to the	mulate judgem application of	nents f their	0,5
							Total:	3
		SECONDA			°S			
RAH212 [!] De	emostrar capacie	dad para la gestión de la	Investiga	ción, Desarrollo e l	nnovación teo	cnológica		
	TIVITIES				СН	NCH	TH	
Carrying out/res nterdisciplinary	solving projects/c contexts, real ar	hallenges/cases, etc. to p nd/or simulated, individual	rovide solu ly and/or ir	itions to problems in teams	8,5 h.	8 h.	16,	5 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and ^{12 h.} procedures associated with the subjects				12	h.			
Carrying out ex	ercises and solvi	ng problems individually a	nd/or in te	ams	5 h.	4 h.	9 h	
EVALUATION	SYSTEM		W	MAKE-UP MECH	ANISMS			
Presentation ar computer pract aboratory prac project, master	nd defence of exe ical work, simulat tical work, term p 's thesis, challeng	ercises, case studies, tion practical work, rojects, end of degree ges and problems	100%	Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical wor term projects, end of degree project, master's thesis, challenges and problems				
H - Class hour CH - Non-class I - Total hours	r s: 25,5 h. s hours: 12 h. s: 37,5 h.							





RAH213 [!] Poseer y comprender conocimientos que aporten una base u oportunidad de ser originales en el desarrollo y/o aplicación de ideas, a menudo en un contexto de investigación

LEARNING ACTIVITIES	СН	NCH	ТН		
Carrying out/resolving projects/challenges/cases, etc. to p interdisciplinary contexts, real and/or simulated, individua	8,5 h.	8 h.	16,5 h.		
Presentation by the teacher in the classroom, in participa procedures associated with the subjects	12 h.		12 h.		
Carrying out exercises and solving problems individually and/or in teams			5 h.	4 h.	9 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANI	SMS		
	100%	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			

CH - Class hours: 25,5 h. NCH - Non-class hours: 12 h. TH - Total hours: 37,5 h.

CONTENTS

1. INTRODUCTION TO DOE2. FULL FACTORIAL DESIGN3. FRACTIONAL FACTORIAL DESIGN4. TAGUCHI METHOD

LEARNING RESOURCES AND BIBLIOGRAPH	IY
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Learning resources	Bibliography
Subject notes	BOX, GEORGE E.P.; HUNTER, WILLIAM G.; HUNTER, J. STUART.
	Estadística para investigadores. Ed. Reverté, Barcelona, 1988
	PRAT, ALBERT; TORT-MARTORELL, XAVIER; GRIMA, PERE;
	POZUETA, LOURDES. Métodos Estadísticos. Control y mejora de la calidad. Ed. UPC, Barcelona, 1997. ISBN 84-8301-222-7
	PHADKE, MADHAV S. Quality Engineering using robust design. Ed. AT&T Bell Laboratories, 1989. ISBN 0-13-745167-9.
	TAGUCHI G.; ELSAYED A. E.; HSIANG T. Quality Engineering in Production Systems. Mc Graw Hill, 1989. ISBN 0-07-062830-0.
	HIRANO, Hiriyuki. Poka Yoke. Mejorando la calidad del producto evitado los defectos. Productivity Press, Inc. ISBN: 84-87022-73-1

[MHB203] MODELLING AND SIMULATION