## **Studies Plan**

# Génie mécanique 2025-26

Block "Projects"

Lang	Courses Code	Sect.	Maste TeacherSpecialigatien	-	Master 2	Exam Session	Exam	Credit
	Mechanical en			LIFI	CLLIF	1		
	project I	.goo	9					
	ME-401	GM	Profs	10	)h	10hS <i>um</i>	During the	10
			divers			Win	semester	
	HSS : Introduc	ction to	project					
		SHS				Win		3
	HSS : Project							
		SHS				Sum		3

### Group "Options accepted SGM"

	Courses			Mas	ter 1		Master	2	Exam Session	Exam	Credit
Lang.	Code	Sect.	TeacherSpecia	li <b>£</b> ati <b>5</b>	n L	TPI	CEL	. T P I			
	Advanced ad	ditive	,								
	manufacturin	g techno	ologies								
Ε	MICRO-413	MT	Brugger				2h	2h	Sum	Oral	4
			Pu								
	Advanced co	•									
_	engineering s										_
E	CIVIL-443	GC	Vassilopoulos	2h 1l	า				Win	Oral	3
_	Assembly tec	•	3						_		_
E	MSE-464	MX					2h		Sum	During the	2
	Basics of mo	hilo robe	otice							semester	
E	MICRO-452	MT	Mondada	1h		1h 2h			Win	Written	4
	Basics of rob					111 211			VVIII	Witten	<del>-</del>
	manipulation										
E	MICRO-450	MT	Bouri	3h					Win	Written	3
	Biophysics :										
	biological sys										
Ε	PHYS-302	PH	Rahi	2h 2l	า				Win	During the	4
										semester	
	Biophysics:	physics	of the								
	cell										
<u>E</u>	PHYS-301	PH	Manley				2h 1h		Sum	Written	3
	Composites t		0,								
Ε	MSE-440	MX	Bourban	2h 1l	า				Win	During the	3
			Michaud							semester	
			Wakeman								
_	Computation						01 01		•	5	
E	MICRO-436	MT	ljspeert				2h 2h		Sum	During the	4
	Computation	al antico	.1							semester	
	Computational imaging	ai optica	U								
E	MICRO-421	MT	Psaltis				3h 1h		Sum	During the	1
_	WIONO 421	1011	i saitis				311 111		Guiii	semester	7
	Computer sin	nulation	of							00///00/0/	
	physical syst										
Ε	PHYS-403	PH	Pasquarello	2h 2l	า				Win	Oral	4
	Continuum m	echanic	s and								
	applications										
Ε	CIVIL-425	GC					3h 2h		Sum	Oral	6
	Convex optim										
E	MGT-418	MTE	Kuhn	2h 2l	า				Win	Written	5
	Corrosion an										
_	metals + Labo						O.L.	41.	0	01	0
F	MSE-311	MX	lgual Muñoz				2h	1h	Sum	Oral	3
	Deformation (	of mater									
F	MSE-310	MX	Logé	3h 1l	<b>1</b>				Win	Oral	4
	Distributed in			JII II	<u> </u>				*****	Ciai	7
	systems	gom	•								
Ε	ENG-466	SIE	Martinoli	2h	2h	1h			Win	Oral	5
-											

Dynamical	system	theory for

	engineers		•							
Ε	COM-502	SC				3h 1h		Sum	Written	6
	Embedded me									
F	MICRO-510	MT	Hodder	1h	2h			Win	Oral	3
			Köchli							
	Energy and co	omfort i	Perriard in							
	buildings	J								
E	CIVIL-407	GC	Favero	2h 1h	2h			Win	During the	5
			Khovalyg						semester	
			Licina							
			Sonta							
_	Energy geost		S			0h 1h	1 h	Cum	Muitton	,
E	CIVIL-444 Environmenta	GC I transi	nort			2h 1h	1h	Sum	Written	4
	phenomena		port							
Ε	ENG-420	SIE	Crouzy	2h 1h	2h			Win	Written	5
			Porté-Agel							
	Industrial auto									_
E	CS-487	SC	Sommer			2h 1h		Sum	Oral	3
	Innovation &		Tournier							
	entrepreneurs	shin in								
	engineering	,,,,,,								
E	MGT-555	MTE	Michaud	2h	8h			Win	During the	10
			Weber						semester	
_	Laser micropi		ng							_
E	MICRO-520	MT	Hoffmann			2h		Sum	Oral	2
E	Legged robot MICRO-507	s <i>MT</i>	lispoort	2h 1h	1h			Win	During the	1
Ľ	WIICKU-30/	IVI I	ljspeert	ZII III	111			VVIII	semester	4
	Machine learn	ing for							SCITICSTOI	
	predictive ma									
	applications									
E	CIVIL-426	GC	Fink	2h 2h	2h			Win	During the	6
									semester	
_	Machine learn	_	Dilloud	41-				14/:	IA/witte ve	,
E	MICRO-455 Machine learn	MT ina II	Billard	4h				Win	Written	4
E	MICRO-570	MT				3h .5h	.5h	Sum	Oral	4
	Machine learn									
	programming	•								
E	MICRO-401	MT	Billard		2h			Win	During the	2
									semester	
_	Materials sele		1 1: a la la u			OL		C	IA/witte ve	^
E	MSE-474	MX	Michler Vaucher			2h		Sum	Written	2
	Microprogram	med F								
	Systems	ca L	inboudou							
_										
F	EE-310	EL	Atienza	2h	2h			Win	Oral	4
F _			Alonso	2h	2h			Win	Oral	4
F 	Multiscale mo		Alonso	2h	2h			Win	Oral	4
	Multiscale mo	delling	Alonso in		2h					
	Multiscale mo		Alonso	2h 2h 2h	2h			Win Win	During the	
	Multiscale mo mechanics CIVIL-408	delling GC	Alonso in Karapiperis		2h					
	Multiscale mo mechanics CIVIL-408	delling GC	Alonso in Karapiperis		2h				During the	
E	Multiscale mo mechanics CIVIL-408	GC	Alonso in Karapiperis		2h				During the	
E	Multiscale mo mechanics CIVIL-408 Nonlinear ana structures	delling GC	Alonso in Karapiperis	2h 2h	2h			Win	During the semester	4
E	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app	GC  GC  GC	Alonso in Karapiperis  f Lignos Saloustros	2h 2h	2h			Win	During the semester	4
E E	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app	GC	Alonso in Karapiperis f Lignos Saloustros ation of	2h 2h	2h			Win Win	During the semester Written	6
E E	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app	GC  GC  GC	Alonso in Karapiperis f Lignos Saloustros ation of Antolin	2h 2h	2h	2h 2h		Win	During the semester	4
E E	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app	GC	Alonso in Karapiperis f Lignos Saloustros ation of Antolin Sanchez	2h 2h	2h	2h 2h		Win Win	During the semester Written	6
E E	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app PDEs MATH-451	GC GC OFFOXIMA	Alonso in Karapiperis f Lignos Saloustros ation of Antolin Sanchez Buffa	2h 2h	2h	2h 2h		Win Win	During the semester Written	6
E	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app PDEs MATH-451  Physiology by	GC  Oroxima  MA	Alonso in Karapiperis f Lignos Saloustros ation of Antolin Sanchez Buffa ms	2h 2h	2h			Win Win Sum	During the semester  Written  Written	6
E E	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app PDEs MATH-451  Physiology by BIO-377	GC GC OFFICE MA  V system SV	Alonso in Karapiperis f Lignos Saloustros ation of Antolin Sanchez Buffa ns Roy	2h 2h	2h	2h 2h 3h 1h		Win Win	During the semester Written	6
E E	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app PDEs MATH-451  Physiology by	GC  GC  OFFICIAL STREET	Alonso in Karapiperis f Lignos Saloustros ation of Antolin Sanchez Buffa ns Roy	2h 2h	2h			Win Win Sum	During the semester  Written  Written	6
E E F	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app PDEs MATH-451  Physiology by BIO-377  Polymer comp	GC  GC  OFFICIAL STREET	Alonso in Karapiperis  f Lignos Saloustros ation of Antolin Sanchez Buffa ms Roy + Bourban	2h 2h	2h			Win Win Sum	During the semester  Written  Written	6
E E F	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app PDEs MATH-451  Physiology by BIO-377 Polymer complete	GC OFFICIENT OF SET OFFICE OFFI	Alonso in Karapiperis  f Lignos Saloustros ation of Antolin Sanchez Buffa ms Roy +	2h 2h 3h 2h				Win Win Sum	During the semester  Written  Written  Written	<ul><li>4</li><li>6</li><li>5</li><li>4</li></ul>
F	Multiscale momechanics CIVIL-408  Nonlinear ana structures CIVIL-449  Numerical app PDEs MATH-451  Physiology by BIO-377  Polymer complaboratory W	GC OFFICIENT OF SET OFFICE OFFI	Alonso in Karapiperis  f Lignos Saloustros ation of Antolin Sanchez Buffa ms Roy + Bourban	2h 2h 3h 2h				Win Win Sum	During the semester  Written  Written  Written	<ul><li>4</li><li>6</li><li>5</li><li>4</li></ul>

	Sensors									
F	MICRO-330	MT	Boero			5h		Sum	Written	5
			Shea							
	Sensors in m	edical								
	instrumentati	ion								
E	EE-511	EL	Chételat			2h 1	h	Sum	Written	3
			Ionescu							
	Space mission	n desig	ın and							
	operations									
E	EE-585	EL	Kuntzer	2h				Win	Oral	2
	Surface analy	/sis								
E	MSE-351	MX	Igual	2h	1h			Win	Written	3
			Muñoz							
			Stolichnov							
	Thermodynai	mics of	comfort							
	in buildings									
E	CIVIL-450	GC	Khovalyg			1h	1h 1h	Sum	During the	3
									semester	
	Towards sus	tainable	)							
	materials									
E	MSE-433	MX	Leterrier			3h 1	h	Sum	During the	4
			Wakeman						semester	
	Tribology									
E	MSE-485	MX	Igual	2h				Win	During the	2
			Muñoz						semester	

### Group "Options SGM"

	Courses			Master 1		Master 2	?	Exam Session	Exam	Credit
Lang.	Code	Sect.	TeacherSpecia	li <b>£</b> ati <b>l5</b> n L T	PI	C E L	TPI			
_	Advanced con	itrol sys	stems Karimi			OL	41-	C	14/11/44 - 1-	3
<u>E</u>	ME-524 Advanced des		Natitiii			2h	1h	Sum	Written	3
	sustainable fu									
E	ME-420	GM	Paik	2h 1h				Win	During the semester	5
	Advanced ene	rgetics								
Е	ME-451	GM	Florez	3h 2h				Win	Oral	5
			Orrego							
	Advanced hea	t trancf	Maréchal							
Ε	ME-465	GM	Haussener			2h 1h		Sum	Written	3
=	Aerodynamics		71446667167			2.0		Gam	· · · · · · · · · · · · · · · · · · ·	
E	ME-445	GM	Mulleners	2h 2h				Win	Written	4
	Aeroelasticity									
_	fluid-structure									_
F	ME-435	GM	Farhat	2h 1h				Win	Written	3
Е	Applied mech	anıcaı d GM	esign	1h	4h			Win	During the	5
									semester	
	Biomechanics	of the								
_	cardiovascula	•				a				_
E	ME-481	GM	Stergiopoulos			2h 1h		Sum	Written	3
	Biomechanics musculoskele		nm.							
E	ME-482	GM	Pioletti			2h 1h		Sum	During the	5
_	WE TOE	Ow	1 lolotti			211 111		Gam	semester	Ü
	Cavitation and	l interfa	се							
	phenomena									
F	ME-462	GM	Farhat	2h	1h			Win	Oral	3
	Continuous in									
Е	manufacturing	g systen GM	n <b>s</b> <i>Kaboli</i>			2h	2h	Sum	During the	5
L	IVI <b>⊏-49</b> 0	GIVI	Naboli			211	211	Sum	During the semester	5
	Data-driven de	esign &							3011103101	
	fabrication me									
E	ME-428	GM	Hughes			2h	1h	Sum	During the	3
									semester	
	Dynamic finite									
Е	analysis of str ME-473	uctures GM	: Burzio	2h 1h				Win	Oral	3
<u></u>	Engines and f	_		ZII III				VVIII	Olai	3
E	ME-551	GM	<b>V</b> an	3h				Win	Written	4
_	00 /	J.,,	Herle	J.,						•

Ε	Heat pump sys ME-459	stems GM	Schiffmann			2h 1h		Sum	Written	3
_	Hydraulic turb			01-41-				147:-	14/-20	
<u>E</u>	ME-453 Hydroacoustic	GM	Vagnoni	3h 1h				Win	Written	4
	hydropower pl									
Ε	ME-443	GM	Nicolet			2h	1h	Sum	Oral	3
_	Hydrodynamic		0 " '			01 01		•	147.50	_
E	ME-444 Instability	GM	Gallaire			2h 2h		Sum	Written	5
Ε	ME-466	GM	Gallaire	2h 1h				Win	Written	3
	Introduction to		ve							
_	manufacturing	,	D ''' '	01	41			14.0	147.50	
Ε	ME-413	GM	Boillat	2h	1h			Win	Written	3
			Brugger Moser							
	Introduction to	nuclea								
	engineering							_		
E	ME-464	GM	Scolaro			2h		Sum	Written	2
	Liquid-gas into		neat							
Ε	ME-446	GM	Lu	2h 1h				Win	Written	3
	Mechanical en	gineeri	ng							
	project II	014	5 (		01		01	•	5	4.0
	ME-402	GM	Profs divers		2h		2h	Sum Win	During the semester	10
	Mechanical pro	oduct d						VVIII	semester	
	and developm									
Ε	ME-410	GM	Paik	2h	1h			Win	During the	5
	Maahaniaa af								semester	
	Mechanics of structures	sienaer								
Ε	ME-411	GM	Reis	3h	2h			Win	Written	5
	Mechanics of		k							
_	biological mat									
Ε	ME-470	GM		3h 1h				Win	During the semester	4
	Mechanobiolo	av: hov	v						GOTTIOGICI	
	Mechanobiolo mechanics reg								domodici	
E				2h 2h				Win	During the	4
E	mechanics reg ME-480	gulate li GM	fe	2h 2h				Win		4
E	mechanics reg ME-480 Micro/Nanome	gulate li GM	fe	2h 2h				Win	During the	4
E	mechanics reg ME-480 Micro/Nanome devices ME-426	gulate li GM echanica GM	fe	2h 2h 2h 2h				Win Win	During the	4
	mechanics reg ME-480 Micro/Nanome devices ME-426 Micro/Nano ro	gulate li GM echanica GM botics	fe al Villanueva					Win	During the semester  Written	4
	mechanics reg ME-480 Micro/Nanome devices ME-426	gulate li GM echanica GM	fe al			2h 1h			During the semester  Written  During the	4
	Micro/Nanome devices ME-426 Micro/Nano ro ME-436	gulate li GM echanica GM botics GM	al Villanueva Sakar			2h 1h		Win	During the semester  Written	4
	mechanics reg ME-480 Micro/Nanome devices ME-426 Micro/Nano ro	chanica GM chanica GM botics GM optimia	al Villanueva Sakar			2h 1h		Win	During the semester  Written  During the	4
	mechanics reg ME-480  Micro/Nanome devices ME-426  Micro/Nano ro ME-436  Modelling and energy system ME-454	echanics  GM  botics  GM  optimizes  GM	fe  al  Villanueva  Sakar  zation of  Maréchal			2h 1h		Win	During the semester  Written  During the	4
<u>E</u>	mechanics reg ME-480  Micro/Nanome devices ME-426  Micro/Nano ro ME-436  Modelling and energy system ME-454  Model predicti	gulate li  GM echanica  GM botics GM optimia is GM ve cont	sal  Villanueva  Sakar  zation of  Maréchal	2h 2h 2h 2h		2h 1h		Win Sum Win	During the semester  Written  During the semester  Oral	3
<u>E</u>	Micro/Nanome devices ME-426 Micro/Nano ro ME-436 Modelling and energy system ME-454 Model predicti ME-425	gulate li  GM  chanics  GM  botics  GM  optimi: ns  GM  ve cont	Villanueva Sakar zation of Maréchal trol Jones	2h 2h		2h 1h		Win Sum	During the semester  Written  During the semester	3
<u>E</u>	mechanics reg ME-480  Micro/Nanome devices ME-426  Micro/Nano ro ME-436  Modelling and energy system ME-454  Model predicti	gulate li  GM  chanics  GM  botics  GM  optimi: ns  GM  ve cont	Villanueva Sakar zation of Maréchal trol Jones	2h 2h 2h 2h		2h 1h		Win Sum Win	During the semester  Written  During the semester  Oral	3
<u>E</u>	Micro/Nanome devices ME-426 Micro/Nano ro ME-436 Modelling and energy system ME-454 Model predicti ME-425 Multiagent dec	gulate li  GM  chanics  GM  botics  GM  optimi: ns  GM  ve cont	Villanueva Sakar zation of Maréchal trol Jones	2h 2h 2h 2h		2h 1h 2h 1h	1h	Win Sum Win	During the semester  Written  During the semester  Oral  Written  During the	4 3 4 4
E	mechanics reg ME-480  Micro/Nanome devices ME-426  Micro/Nano ro ME-436  Modelling and energy system ME-454  Model predicti ME-425  Multiagent dec and control ME-429	gulate li GM chanics GM botics GM optimia ns GM ve cont GM cision-n	Villanueva Sakar zation of Maréchal trol Jones naking	2h 2h 2h 2h			1h	Win Sum Win	During the semester  Written  During the semester  Oral  Written	4 3 4 4
E E E	mechanics reg ME-480  Micro/Nanome devices ME-426  Micro/Nano ro ME-436  Modelling and energy system ME-454  Model predicti ME-425  Multiagent dec and control ME-429  Multivariable of	gulate li GM echanics GM botics GM optimiz ns GM ve cont GM cision-n GM	sal  Villanueva  Sakar  zation of  Maréchal  irol  Jones making  Kamgarpour	2h 2h 2h 2h 2h 2h			1h	Win Sum Win Win Sum	During the semester  Written  During the semester  Oral  Written  During the semester	4 3 4 4
E	mechanics reg ME-480  Micro/Nanome devices ME-426  Micro/Nano ro ME-436  Modelling and energy system ME-454  Model predicti ME-425  Multiagent dec and control ME-429	gulate li GM chanics GM botics GM optimia ns GM ve cont GM cision-n	Villanueva Sakar zation of Maréchal trol Jones naking	2h 2h 2h 2h			1h	Win Sum Win	During the semester  Written  During the semester  Oral  Written  During the	4 3 4 4
E E E E	Micro/Nanome devices ME-426 Micro/Nano ro ME-426 Micro/Nano ro ME-436 Modelling and energy system ME-454 Model predicti ME-425 Multiagent declared control ME-429 Multivariable of ME-422 Nano-scale he	pulate li GM chanics GM optimis s GM ve cont GM cision-n GM control GM at trans	sal  Villanueva  Sakar  zation of  Maréchal  rol  Jones naking  Kamgarpour  Ferrari  Trecate  sfer	2h 2h 2h 2h 2h 2h		2h 1h		Win Sum Win Win Sum Win	During the semester  Written  During the semester  Oral  Written  During the semester  Written	4 3 4 4 4
E E E	Micro/Nanome devices ME-426 Micro/Nano ro ME-426 Micro/Nano ro ME-436  Modelling and energy system ME-454 Model predicti ME-425 Multiagent dec and control ME-429  Multivariable of ME-422	chanics  GM  botics  GM  optimis  s  GM  ve cont  GM  cision-n  GM  control  GM	Villanueva Sakar  Zation of  Maréchal  Irol Jones naking  Kamgarpour  Ferrari Trecate	2h 2h 2h 2h 2h 2h			1h	Win Sum Win Win Sum	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester	4 3 4 4 4
E E E E	Micro/Nanome devices ME-426 Micro/Nano ro ME-436 Modelling and energy system ME-454 Model predicti ME-425 Multiagent decand control ME-429 Multivariable of ME-422 Nano-scale he ME-469	chanica GM botics GM optimias GM control GM control GM at trans	Villanueva Sakar  zation of Maréchal rol Jones naking Kamgarpour  Ferrari Trecate sfer Tagliabue	2h 2h 2h 2h 2h 2h		2h 1h		Win Sum Win Win Sum Win	During the semester  Written  During the semester  Oral  Written  During the semester  Written	4 3 4 4 4
E E E E	Micro/Nanome devices ME-426 Micro/Nano ro ME-426 Micro/Nano ro ME-436 Modelling and energy system ME-454 Model predicti ME-425 Multiagent declared control ME-429 Multivariable of ME-422 Nano-scale he	chanica GM botics GM optimias GM control GM control GM at trans	Villanueva Sakar  zation of Maréchal rol Jones naking Kamgarpour  Ferrari Trecate sfer Tagliabue	2h 2h 2h 2h 2h 2h		2h 1h		Win Sum Win Win Sum Win	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester	4 3 4 4 4
E E E E E	Micro/Nanome devices ME-426 Micro/Nano ro ME-426 Micro/Nano ro ME-436  Modelling and energy system ME-454 Model predicti ME-425 Multiagent decand control ME-429  Multivariable of ME-422  Nano-scale he ME-469  Networked con ME-427	chanics GM botics GM optimizes GM ve cont GM control GM control GM at trans GM ord GM control GM control GM control GM control GM	Villanueva Sakar  zation of Maréchal rol Jones naking Kamgarpour  Ferrari Trecate sfer Tagliabue stems Ferrari Trecate	2h 2h 2h 2h 2h 2h 2h 2h		2h 1h		Win Sum Win Sum Win Sum Win Sum	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester  Uritten	4 3 4 4 4 4
E E E E E E E E	Micro/Nanome devices ME-426 Micro/Nano ro ME-426 Micro/Nano ro ME-436 Modelling and energy system ME-454 Model predicti ME-425 Multiagent decand control ME-429 Multivariable of ME-422 Nano-scale he ME-469 Networked con ME-427 Nonlinear Con	chanics  GM  botics  GM  optimizes  GM  ve cont  GM  control  GM  cont	Villanueva Sakar  zation of Maréchal crol Jones making Kamgarpour  Ferrari Trecate sfer Tagliabue  stems Ferrari Trecate stems	2h 2h 2h 2h 2h 2h 2h 2h 2h 1h		2h 1h		Win Sum Win Win Sum Win Sum Win Sum Win	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester  Written  During the semester  Written	4 3 4 4 4 4 3
E E E E E	Micro/Nanome devices ME-426 Micro/Nano ro ME-426 Micro/Nano ro ME-436  Modelling and energy system ME-454 Model predicti ME-425 Multiagent dec and control ME-429  Multivariable of ME-422  Nano-scale he ME-469  Networked con ME-427  Nonlinear Con ME-523	optimizes  GM  optimizes  GM  optimizes  GM  ve control  GM	Villanueva Sakar  zation of  Maréchal irol Jones making  Kamgarpour  Ferrari Trecate ifer Tagliabue  stems Ferrari Trecate stems Müllhaupt	2h 2h 2h 2h 2h 2h 2h 2h		2h 1h		Win Sum Win Sum Win Sum Win Sum	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester  Uritten	4 3 4 4 4 4
E E E E E E E E	Micro/Nanome devices ME-426 Micro/Nano ro ME-426 Micro/Nano ro ME-436 Modelling and energy system ME-454 Model predicti ME-425 Multiagent decand control ME-429 Multivariable of ME-422 Nano-scale he ME-469 Networked con ME-427 Nonlinear Con	optimizes  GM  optimizes  GM  optimizes  GM  ve control  GM	Villanueva Sakar  zation of  Maréchal irol Jones making  Kamgarpour  Ferrari Trecate ifer Tagliabue  stems Ferrari Trecate stems Müllhaupt	2h 2h 2h 2h 2h 2h 2h 2h 2h 1h		2h 1h		Win Sum Win Win Sum Win Sum Win Sum Win	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester  Written  During the semester  Written  Written	4 3 4 4 4 4 3 3
E E E E E E E E E E E E E E E E E E E	mechanics reg ME-480  Micro/Nanome devices ME-426  Micro/Nano ro ME-436  Modelling and energy system ME-454  Model predicti ME-425  Multiagent dec and control ME-429  Multivariable of ME-422  Nano-scale he ME-469  Networked con ME-427  Nonlinear Con ME-523  Numerical flow ME-474	pulate li GM chanics GM botics GM optimis s GM ve cont GM cision-n GM at trans GM ntrol sy GM v simuls GM v simuls GM	Villanueva Sakar Zation of Maréchal Trol Jones Trecate Sier Tagliabue Stems Ferrari Trecate Stems Ferrari Trecate Stems Müllhaupt Ation Boujo	2h 2h 2h 2h 2h 2h 2h 2h 2h 1h 2h 1h		2h 1h		Win Sum Win Win Sum Win Sum Win Win Win Win	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester  Written  During the semester  Written	4 3 4 4 4 4 3 3
E E E E E E E E E E E E E E E E E E E	Micro/Nanomedevices ME-426 Micro/Nanomedevices ME-426 Micro/Nano ro ME-436 Modelling and energy system ME-454 Model predicti ME-425 Multiagent declared and control ME-429 Multivariable of ME-422 Nano-scale he ME-469 Networked con ME-427 Nonlinear Con ME-523 Numerical flow ME-474 Numerical met	chanica GM  optimians GM  control GM  control GM  at trans GM  optimians GM  recont GM  control GM  at trans GM  optimians GM  control GM  at trans GM  optimians GM  control GM  control GM  at trans GM  optimians GM  control GM  control Sys  GM  control Sys  GM  control Sys  GM  control Sys  control Sys	Villanueva Sakar Zation of Maréchal Trol Jones Trecate Sier Tagliabue Stems Ferrari Trecate Stems Ferrari Trecate Stems Müllhaupt Ation Boujo	2h 2h 2h 2h 2h 2h 2h 2h 2h 1h 2h 1h		2h 1h		Win Sum Win Win Sum Win Sum Win Win Win Win	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester  Written  During the semester  Written  During the semester  Written	4 3 4 4 4 4 3 3
E E E E E E E E E E E E E E E E E E E	mechanics reg ME-480  Micro/Nanome devices ME-426  Micro/Nano ro ME-436  Modelling and energy system ME-454  Model predicti ME-425  Multiagent dec and control ME-429  Multivariable of ME-422  Nano-scale he ME-469  Networked con ME-427  Nonlinear Con ME-523  Numerical flow ME-474	chanica GM  optimians GM  control GM  control GM  at trans GM  optimians GM  recont GM  control GM  at trans GM  optimians GM  control GM  at trans GM  optimians GM  control GM  control GM  at trans GM  optimians GM  control GM  control Sys  GM  control Sys  GM  control Sys  GM  control Sys  control Sys	Villanueva Sakar Zation of Maréchal Trol Jones Trecate Sier Tagliabue Stems Ferrari Trecate Stems Ferrari Trecate Stems Müllhaupt Ation Boujo	2h 2h 2h 2h 2h 2h 2h 2h 2h 1h 2h 1h		2h 1h		Win Sum Win Win Sum Win Sum Win Win Win Win	During the semester  Written  During the semester  Oral  Written  During the semester  Written  During the semester  Written  During the semester  Written  During the semester  Written	4 3 4 4 4 4 3 3

Product decarbonization and	ł
life cycle analysis	

	lite cycle ana	iysis								
E	ME-517	GM	Wakeman	2h 1h	1h			Win	During the semester	4
	Production m	nanagen	nent							<u>.</u>
Ε	ME-419	GM	Kaboli	2h	2h			Win	During the semester	5
	Renewable e	nergy (f	or ME)							
E	ME-460	GM `	Haussener			2h 1h		Sum	Written	4
			Van							
			Herle							
	Solar energy	conver	sion							
E	ME-468	GM	Haussener	2h 1h	1h			Win	Written	4
	System ident	ificatior	1							
E	ME-421	GM	Karimi			2h	1h	Sum	Written	3
	Thermal pow	er plant	S							
E	ME-458	ĞM	Van			2h 1h		Sum	Written	3
			Herle							
	Turbulence									
E	ME-467	GM	Schneider			3h 2h		Sum	During the semester	5

#### Master project

	Courses		Master	Master 2	Exam Session	Exam	Credit	
Lang	. Code	Sect.	TeacherSpecialitatian l	TPI	CELTPI			
	Engineering in credited with project(maste engineering)	master	•					
F	ME-597	GM	Profs divers	32	20h 3	20 <b>S</b> ium Win	During the semester	0