## **Studies Plan**

## Mineur : Génie mécanique 2025-26

Minor : Mechanical Engineering

	Courses			Exam Session	Exam	Credit
Lang.	Code	Sect.	Teacher			
_	Advanced cor				147.60	_
<u> </u>	ME-524	GM	Karimi	Sum	Written	3
_	Advanced end	-		147	o ,	_
E	ME-451	GM	Florez	Win	Oral	5
			Orrego			
			Maréchal			
_	Advanced hea			0	14/	•
<u> </u>	ME-465	GM	Haussener	Sum	Written	3
_	Aerodynamic			147	147.50	
<u> </u>	ME-445	GM	Mulleners	Win	Written	4
	Aeroelasticity		4!			
_	fluid-structure			14/in	Millon	2
=	ME-435	GM	Farhat	Win	Written	3
_	Applied mech		esign	1475	D	_
₹	ME-403	GM		Win	During the	5
	<u> </u>				semester	
	Biomechanics					
_	cardiovascula			0	14/	•
	ME-481	GM	Stergiopoulos	Sum	Written	3
	Biomechanics					
_	musculoskele	•		0	5	_
Ξ	ME-482	GM	Pioletti	Sum	During the	5
					semester	
	Cavitation and	d interfa	ce			
_	phenomena					_
=	ME-462	GM	Farhat	Win	Oral	3
	Compressible			_		
=	ME-343	GM	Gallaire	Sum	Written	4
	Continuous ir	nproven	nent of			
	manufacturing	g systen				
Ξ	ME-498	GM	Kaboli	Sum	During the	5
					semester	
	Control syste	ms + TP				
Ξ	ME-321	GM	Jones	Win	Written	4
			Salzmann			
	Discrete-time	control	of			
	dynamical sys					
=	ME-324	GM	Müllhaupt	Sum	Written	2
	Discretization	method	ls in			
	fluids					
=	ME-371	GM	Burzio	Sum	Written	3
	Dynamical eff	ects in	_	-		
	mechanical de	esign				
=	ME-311	GM	Schiffmann	Sum	Written	3
	Dynamic finite	e elemer	nt			
	analysis of st					
Ξ	ME-473	GM	Burzio	Win	Oral	3
	Engines and f		5			
Ξ	ME-551	GM	Van	Win	Written	4
			Herle			
	Finite elemen	t method				
=	ME-372	GM	Burzio	Win	Written	3
-			Gallaire			
	Finite elemen	t modell				
	simulation		J			
=	ME-373	GM	Boujo	Sum	During the	3
	3. 0		·, -		semester	-
	Fluid mechan	ics (for (	GM)		30,,,,00,0,	
Ξ	ME-280	GM	Schneider	Sum	Written	4
_	Foundations			Juiii	VVIILLEII	7
		or artific	ıaı			
=	intelligence	CM	Komacroour	14/in	M/ritton	2
E	ME-390	GM	Kamgarpour	Win	Written	3
E				Win Sum	Written Written	3

E	Heat pump sys	tems GM	Schiffmann	Sum	Written	3		
<u>-</u>	Hydraulic turbo	-		Suili	vviilleii	3		
E	. <del>.</del> _	GM	Vagnoni	Win	Written	4		
	Hydroacoustic							
_	hydropower pla ME-443	ants GM	Nicolet	Cum	Oral	3		
<u>E</u>	Hydrodynamics	_	Micolet	Sum	Oral	<u> </u>		
Ε		GM	Gallaire	Sum	Written	5		
	Instability							
E		<u>GM</u>	Gallaire	Win	Written	3		
E	Introduction to manufacturing ME-413	additiv GM	Boillat	Win	Written	3		
	Brugger Moser							
	Introduction to	nuclea	ır					
_	engineering	C14	C/	C	14/11/44 - 1-	•		
<u>E</u>	ME-464 Introduction to	GM	Scolaro	Sum	Written	2		
E	turbomachinery		Yim	Sum	Written	2		
<u>-</u>	Liquid-gas inte			Guiii	VVIIILGII			
	and mass trans							
E		GM .	Lu	Win	Written	3		
	Mechanical pro		esign					
Е	and developme ME-410	ent GM	Paik	Win	During the	5		
_	WIL 710	JIVI	. ain	V V II I	semester	J		
	Mechanical vib	rations	i					
F		GM	Villanueva	Win	Written	4		
	Mechanics of s	lender						
Е	structures ME-411	GM	Reis	Win	Written	5		
	Mechanics of s	-		*****	William			
	biological matte							
Ε	ME-470	GM		Win	During the	4		
					semester			
-	Maahanahialaa	6 6.11			00///00/0/			
E	Mechanobiolog mechanics regu ME-480			Win	During the	4		
E	mechanics regi	ulate lit GM	ie	Win		4		
	mechanics reginerated ME-480  Micro/Nanomed devices	ulate lif	ie al		During the semester			
E	mechanics reginerated ME-480  Micro/Nanomed devices ME-426	ulate lif GM chanica	ie	Win Win	During the	4		
<u>E</u>	mechanics regr ME-480 Micro/Nanomed devices ME-426 Micro/Nano rob	ulate lit GM  chanica GM  ootics	ie al Villanueva	Win	During the semester  Written	4		
	mechanics regr ME-480 Micro/Nanomed devices ME-426 Micro/Nano rob ME-436	ulate lif GM chanica GM potics GM	ie Villanueva Sakar		During the semester	4		
<u>E</u>	mechanics regr ME-480 Micro/Nanomed devices ME-426 Micro/Nano rob	ulate lif GM chanica GM potics GM	ie Villanueva Sakar	Win	During the semester  Written  During the	4		
<u>E</u> E	mechanics regressive ME-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems	chanica  GM  chanica  GM  ootics  GM  optimiz	Villanueva Sakar sation of	Win Sum	During the semester  Written  During the semester	3		
<u>E</u>	mechanics regressions regressi	ulate lif GM chanica GM ootics GM optimiz s GM	Villanueva Sakar sation of Maréchal	Win	During the semester  Written  During the	4		
<u>E</u> E	mechanics regressions regressi	ulate lif GM chanica GM potics GM optimiz s GM	Villanueva Sakar sation of Maréchal	Win Sum	During the semester  Written  During the semester	3		
<u>Е</u> Е	mechanics regressive ME-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictive	chanica  GM  ootics  GM  optimiz  s  GM  optimiz  s  GM  re cont	Villanueva Sakar Sation of Maréchal rol Jones	Win Sum Win	During the semester  Written  During the semester  Oral	3		
E E E	mechanics regressions regressi	ulate lif GM chanica GM ootics GM optimiz s GM re cont	Villanueva Sakar sation of Maréchal rol Jones saking	Win Sum Win Win	During the semester  Written  During the semester  Oral  Written	4 4 4		
<u>Е</u> Е	mechanics regressions regressi	chanica  GM  ootics  GM  optimiz  s  GM  optimiz  s  GM  re cont	Villanueva Sakar Sation of Maréchal rol Jones	Win Sum Win	During the semester  Written  During the semester  Oral  Written  During the	4 4 4		
E E E	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429	chanica  GM  ootics  GM  optimiz  s  GM  re cont  GM  ision-m	Villanueva Sakar sation of Maréchal rol Jones saking	Win Sum Win Win	During the semester  Written  During the semester  Oral  Written	4 4 4		
E E E	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable co	chanica  GM  ootics  GM  optimiz  s  GM  re cont  GM  ision-m	Villanueva Sakar sation of Maréchal rol Jones saking	Win Sum Win Win	During the semester  Written  During the semester  Oral  Written  During the	4 4 4		
<u>E</u>	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable co	chanica  GM  ootics  GM  optimiz  s  GM  re cont  GM  ision-m  GM  ontrol	Villanueva Sakar Sation of Maréchal rol Jones Jaking Kamgarpour	Win Sum Win Win Sum	During the semester  Written  During the semester  Oral  Written  During the semester	4 3 4 4		
E E E	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable con ME-422  Nano-scale hea	chanica  GM  chanica  GM  optics  GM  optimizs  GM  re cont  GM  ision-m  GM  ontrol  GM  at trans	Villanueva Sakar Sation of Maréchal rol Jones naking Kamgarpour Ferrari Trecate fer	Win Sum Win Win Sum	During the semester  Written  During the semester  Oral  Written  During the semester  Written	4 3 4 4 4		
<u>E</u>	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable con ME-422  Nano-scale hea	chanica  GM  chanica  GM  cotics  GM  coptimiz  s  GM  re cont  GM  ision-m  GM  control  GM	Villanueva Sakar Sation of Maréchal rol Jones aking Kamgarpour Ferrari Trecate	Win Sum Win Win Sum	During the semester  Written  During the semester  Oral  Written  During the semester	4 3 4 4 4		
E E E	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable con ME-422  Nano-scale hea	ulate lif GM chanica GM potics GM optimiz s GM re cont GM sion-m GM ontrol GM at trans GM	Villanueva Sakar Sation of Maréchal rol Jones Baking Kamgarpour Ferrari Trecate fer Tagliabue	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	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable com ME-422  Nano-scale hea ME-469  Networked com	ulate lif GM chanica GM potics GM optimiz s GM re cont GM sion-m GM ontrol GM at trans GM	Villanueva Sakar Sation of Maréchal rol Jones Baking Kamgarpour Ferrari Trecate fer Tagliabue	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 E E E E E E E E E E E E E E E	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable com ME-422  Nano-scale hea ME-469  Networked com	chanica  GM  optimiz  GM  optimiz  GM  optimiz  GM  re cont  GM  optimiz  GM  re cont  GM  optimiz  GM  optimiz  GM  re cont  GM  optimiz  opti	Villanueva Sakar Sakar Sation of Maréchal Tol Jones Taking Kamgarpour Ferrari Trecate fer Tagliabue Stems Ferrari Trecate Trecate	Win Sum Win Sum Win Sum Win	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 E E E E E E E E E E E	mechanics regime-480  Micro/Nanomedevices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable come-429  Nano-scale head ME-469  Networked con ME-427  Nonlinear Cont ME-523	chanica  GM  chanica  GM  cotics  GM  coptimiz  s  GM  re cont  GM  control  GM  control  GM  control  GM  control  GM  control  COM  control  cont	Villanueva Sakar Sakar Sation of Maréchal Tol Jones Taking Kamgarpour Ferrari Trecate fer Tagliabue Stems Ferrari Trecate Stems Ferrari Trecate Stems Müllhaupt	Win Sum Win Sum Win Sum Win	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	mechanics regime-480  Micro/Nanomedevices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable come-429  Nano-scale heame-469  Networked con ME-427  Nonlinear Cont ME-523  Numerical flow	chanica  GM  chanica  GM  cotics  GM  coptimiz  s  GM  re cont  GM  control  GM  control  GM  control  GM  control  GM  control  COM  control  cont	Villanueva Sakar Sakar Sation of Maréchal Tol Jones Taking Kamgarpour Ferrari Trecate fer Tagliabue Stems Ferrari Trecate Stems Ferrari Trecate Stems Müllhaupt	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  Uring the semester  Written	4 3 4 4 4 4 4 3		
E E E E E E F	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multivariable con ME-422  Nano-scale hea ME-469  Networked con ME-427  Nonlinear Cont ME-523  Numerical flow ME-474	chanica  GM optimiz  S GM opti	Sakar Sakar Sakar Sation of Maréchal Tol Jones Saking Kamgarpour  Ferrari Trecate fer Tagliabue Stems Ferrari Trecate Stems Müllhaupt Müllhaupt Shujo	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  During the semester  Written	4 3 4 4 4 4 3 3		
E E E E E E F	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deci and control ME-429  Multivariable comedia ME-422  Nano-scale head ME-469  Networked con ME-427  Nonlinear Cont ME-523  Numerical flow ME-474  Numerical methods	chanica  GM optimiz  S GM opti	Sakar Sakar Sakar Sation of Maréchal Tol Jones Saking Kamgarpour  Ferrari Trecate fer Tagliabue Stems Ferrari Trecate Stems Müllhaupt Müllhaupt Shujo	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  During the semester  Written	4 3 4 4 4 4 3 3		
E E E E E E F	mechanics regime-480  Micro/Nanomed devices ME-426  Micro/Nano rob ME-436  Modelling and denergy systems ME-454  Model predictiv ME-425  Multiagent deciand control ME-429  Multivariable com ME-422  Nano-scale hea ME-469  Networked con ME-427  Nonlinear Cont ME-523  Numerical flow ME-474  Numerical metholomechanics	chanica  GM optimiz  S GM opti	Sakar Sakar Sakar Sation of Maréchal Tol Jones Saking Kamgarpour  Ferrari Trecate fer Tagliabue Stems Ferrari Trecate Stems Müllhaupt Müllhaupt Shujo	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  During the semester  Written	4 3 4 4 4 4 3 3		

engineering design									
E	ME-320	GМ	Hughes	Win	During the semester	3			
	Production management								
Ε	ME-419	GM	Kaboli	Win	During the semester	5			
	Renewable e	nergy (f	or ME)						
Ε	ME-460	GM	Haussener Van Herle	Sum	Written	4			
-	Solar energy	conver							
E	ME-468	GM	Haussener	Win	Written	4			
	Solid mechanics								
E	ME-331	GM	Reis	Sum	Written	4			
	System identification								
Ε	ME-421	GM	Karimi	Sum	Written	3			
	Thermal power plants								
E	ME-458	GM	Van	Sum	Written	3			
			Herle						
-	Thermodynamics and								
	energetics II								
E	ME-351	GM	Raju	Sum	Written	3			
			Natarajan						
-	Turbulence					,			
Ε	ME-467	GM	Schneider	Sum	During the semester	5			