MECHANICAL AND SUSTAINABLE ENGINEERING Kod					1 240 sp														
General education studies (15 sp)					Yer	ar 1			Ye	ar 2			Yea	ar 3			Yea	ar 4	
	Educatio	n in a Digital and Sustainable Nordic Society (15 sp)		P1	P2	P3	P4	P1	P2	P3	P4	P1	P2	P3	P4	P1	P2	P3	P4
		Technology and Learning	GT-1-013	5															
		Teamwork and Innovation	GT-1-014		5														
		Ethical and Sustainable Societal Development	GT-1-015			5													
Professional	studies (	l65 sp)			Yea	ar 1			Ye	ar 2			Yea	ar 3			Yea	ar 4	
	Basic stu	dies in Technology (30 sp)																	
		Linear Algebra	PM-2-026		5														
		Differential calculus	PM-2-025					5											
		Integral calculus	PM-2-024		(				5										
		Engineering Chemistry	GT-2-013	5	,														
		Engineering Physics	GT-2-014				5												
		Introduction to programming and automation	GT-2-024	2.5	2.5														
	Sustaina	ble Modelling (15 sp)																	
		Environment and Resources	GT-2-015		(		5												
		Sustainable Energy and Materials	GT-2-019		(			5											
		Life Cycle Assessment	GT-2-020								5								
	Technica	l Modelling (15 sp)																	
		Technical Drawing	PM-2-030		5														
		Computer Aided Design	PM-2-031		(	5													
		Programming	GT-2-021		(						5								
	Materials	(30 sp)																	
		Materials Chemistry	PM-2-032		(					5									
		Manufacturing and Processing	PM-2-034		,					2.5	2.5								
		Material properties	PM-2-033		(						5								
		Composites	PM-2-035		,							2.5	2.5						
		Heat Transfer	PM-1-006									5							
		Material Selection	PM-2-041		(										5				
	Engineer	ing Design (30 sp)																	
		Statics	PM-2-036		,				5										
		Mechanics of Materials	IM-2-042		,					5									
		Digital Manufacturing	PM-2-038		,							5						,	
		Finite Element Method	PM-2-003		(										5				
		Dynamics	PM-2-037										5						
		Computer Aided Engineering	PM-2-039		(									2.5	2.5				
	Professio	onal Communikation (15 sp)																	
		English Professional Communication MSE	SP-2-028		( )	2.5	2.5												
		Swedish for Beginners 1	SP-1-004		(			5											
		Swedish for Beginners 2	SP-1-044						5										
	Practical	Training (30 sp)																	
		Practical Training 1 (can be taken in any summer between 1st and 2nd year)	PM-5-005															15	
		Practical Training 2 (can be taken in any summer between 2nd and 3rd year)	PM-5-006																15
												-							
Development	Studies	(30 sp)		Year 1			Year 2				Year 3				Year 4				
	Circular	Economy (15 sp)					-												
		Circular Economy Principles	GT-3-002						5										
		Circular Economy Sectors	GT-3-003							5								لــــــــــــــــــــــــــــــــــــــ	
		Circular Economy Indicators	GT-3-004																
	Plastic To	chnology (15 sp)			<u>ا ا</u>						5								
		cilliology (15 sp)			·						5							ı	
		Fluid Mechanics	MP-2-051	-							5		5						
		Fluid Mechanics Mould Design	MP-2-051 PT-2-007								5		5	5					
		Fluid Mechanics Mould Design Processing Methods and Optimization	MP-2-051 PT-2-007 PM-3-019								5		5	5		5			
	Advance	Find Mechanics Mould Design Processing Methods and Optimization d Materials Technology (15 sp)	MP-2-051 PT-2-007 PM-3-019								5		5	5		5			
	Advance	Fluid Mechanics Mould Design Processing Methods and Optimization <i>Materials Technology (15 sp)</i> Sustainable Product Design	MP-2-051 PT-2-007 PM-3-019 PM-3-028								5	5	5	5		5			
	Advance	Fluid Mechanics Mould Design Processing Methods and Optimization d Materials Technology (15 sp) Sustainable Product Design Viscoelasticity	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023								5	5	5	5		5			
	Advance	Fluid Mechanics Mould Design Processing Methods and Optimization d Materials Technology (15 sp) Sustainable Product Design Viscoelasticity Material Analysis	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046								5	5	5 5 5	5		5			
	Advance Project (1	Fluid Mechanics Mould Design Processing Methods and Optimization <b>Materials Technology (15 sp)</b> Sustainable Product Design Viscoelasticity Material Analysis <b>5 sp)</b>	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046								5	5	5	5		5			
	Advance Project (1	Fluid Mechanics Mould Design Processing Methods and Optimization <i>4 Materials Technology (15 sp)</i> Sustainable Product Design Viscoelasticity Material Analysis <i>5 sp)</i> Project	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007								5	5	5 5 5 3.75	5 3.75	3.75	5			
	Advance Project (1 Finnish f	Amongy (1 3 sp)     Fluid Mechanics     Mould Design     Processing Methods and Optimization     Materials Technology (15 sp)     Sustainable Product Design     Viscoelasticity     Material Analysis     5 sp)     Project     pregenners (15 sp)	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007								5	5	5 5 5 3.75	5 3.75	3.75	5			
	Advance Project († Finnish f	Fluid Mechanics Mould Design Processing Methods and Optimization Materials Technology (15 sp) Sustainable Product Design Viscoelasticity Material Analysis 5 sp) Project progect progect progent of the spinors (15 sp) Finnish for Beginners (1	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007 SP-3-016	5							5	5	5 5 5 3.75	5	3.75	5			
	Advance Project († Finnish f	Filial Mechanics Mould Design Processing Methods and Optimization  d Materials Technology (15 sp) Sustainable Product Design Viscoelasticity Material Analysis  5 sp) Project  Finnish for Beginners I Finnish for Beginners I Finnish for Beginners I	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007 SP-3-016 SP-3-010	5							5	5	5 5 5 3.75	5	3.75	5			
	Advance Project († Finnish f	Fluid Mechanics Mould Design Processing Methods and Optimization <b>I Materials Technology (15 sp)</b> Sustainable Product Design Viscoelasticity Material Analysis <b>5 sp)</b> Project <b>or Beginners (15 sp)</b> Finnish for Beginners I Finnish for Beginners II Finnish for Beginners III Finnish for Beginners III	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007 SP-3-016 SP-3-010 SP-3-014	5		5					5	3.75	5 5 5 3.75	3.75	3.75	5			
	Advance Project (1 Finnish f	Fluid Mechanics Mould Design Processing Methods and Optimization <b>Materials Technology (15 sp)</b> Sustainable Product Design Viscoelasticity Material Analysis <b>5 sp)</b> Project <b>5 regeners (15 sp)</b> Finnish for Beginners I Finnish for Beginners II Finnish For Beginners III Finnish For Beginners II	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007 SP-3-016 SP-3-010 SP-3-014	5		5					5	3.75	5 5 5 3.75	3.75	3.75	5			
	Advance Project († Finnish f Other de	Fluid Mechanics Mould Design Processing Methods and Optimization	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007 SP-3-016 SP-3-010 SP-3-014	5		5					5	3.75	5 5 3.75	5	3.75	5			
	Advance Project (; Finnish f Other de	Fluid Mechanics Mould Design Processing Methods and Optimization  Muld Design Processing Methods and Optimization  Materials Technology (15 sp) Sustainable Product Design Viscoelasticity Material Analysis  5 sp) Project progect progect progect progect progent studies Introduction to Engineering Mathematics Product P	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007 SP-3-016 SP-3-010 SP-3-014	5		5					5	3.75	5 5 3.75	5	3.75	5			
Research Stu	Advance Project (: Finnish f Other de Idies (30 :	Fluid Mechanics Mould Design Processing Methods and Optimization  Materials Technology (15 sp) Sustainable Product Design Viscoelasticity Material Analysis  5 sp) Project 5 sp) Finnish for Beginners I Finnish for Beginners II Finnish for Beginne	MP-2-051 PT-2-007 PM-3-019 PM-3-023 MP-2-046 PM-2-007 SP-3-016 SP-3-010 SP-3-014	5	5 7 7 7	5 ar 1			Ye		5	3.75	5 5 3.75 Yea	5 3.75	3.75		Yei		
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Research Stu	Advance Project (: Finnish f Other de dies (30 : Thesis at	Annoogy (1 3 p) Fluid Mechanics Mould Design Processing Methods and Optimization	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-028 PM-2-046 PM-2-046 PM-2-007 SP-3-016 SP-3-010 SP-3-014	5	5 Yea	5 1			Ye	ar 2	5	<u>5</u> 3.75	5 5 3.75 Yea	5 3.75 ar 3 5	3.75		Yea		
Research Stu	Advance Project (: Finnish f Other de Thesis au	Armougy (1 3 g)  Fluid Mechanics  Mould Design  Processing Methods and Optimization  Material Stechnology (1 5 sp)  Sustainable Product Design  Viscoelasticity  Material Analysis  5 sp)  Project  or Beginners (15 sp)  Finnish for Beginners II  Finnish	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 SP-3-010 SP-3-010 SP-3-014 GT-2-022 GT-2-023 GT-2-025 GT-2-025	5		5 ar 1			Ye	ar 2		3.75	5 5 3.75 Yea	5 3.75 ar 3 5	3.75	5 5	Yea		
Research Stu	Advance Project (1 Finnish f Other det dies (30 s Thesis at	Fluid Mechanics     Mould Design     Processing Methods and Optimization     definition	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007 SP-3-016 SP-3-010 SP-3-010 SP-3-014 GT-2-027 GT-2-022 GT-2-022 GT-2-023 GT-2-022	5	5 Yea	5 ar 1			Ye	ar 2		3.75	5 5 3.75 Yea	5 3.75 ar 3 5	3.75	5	Yea	ir 4	
Research Stu	Advance Project (: Finnish f Other de dies (30 : Thesis ar	Among (1 3 5) Fluid Mechanics Mould Design Processing Methods and Optimization <b>1 Materials Technology (15 sp)</b> Sustainable Product Design Viscoelasticity Material Analysis <b>5 sp)</b> Project <b>5 r Beginners (15 sp)</b> Finnish for Beginners I Finnish for Beginners II Finnish for Beginners II Finnish for Beginners III <b>relopment studies</b> Iltraduction to Engineering Mathematics <b>5 p)</b> <b>d Methods (30 sp)</b> Writing for Research Thesis Seminars Data Analysis Thesis for Bachelor Degree in Technology, Bachelor of Engineering Thesis for Bachelor Degree in Technology, Bachelor of Engineering SIMMA DEP DEDICT	MP-2-051 PT-2-007 PM-3-019 PM-3-028 PM-3-023 MP-2-046 PM-2-007 SP-3-016 SP-3-010 SP-3-010 SP-3-014 GT-2-022 GT-2-023 GT-2-023 GT-2-025 LP-324000	5	5 Yez	5 15			Ye	ar 2	5	<u>5</u> 3.75	5 5 3.75 Yee	5 3.75 ar 3 5	3.75	5 	Yei 15	rr 4	