Metropolia UAS Biotechnology and Chemical							ner								
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1st Year of study	Orientation to Field and Studies in Biotechnical,														
	Chemical and Surface Engineering	30													
	Unernation to Field and Studies	5		х						X	х	х			
	Fundamentals of Chemistry T	5	X	v	v		X			X		Y	v		
	Fundamentals of Chemistry 2	5	X	~	X					×		~	^		
	Fundamentals of Mathematics and Natural Sciences 1	5	x							Ŷ					
	Fundamentals of Mathematics and Natural Sciences 2	5	x							x					
	Introduction to Industrial Processes in Biotechnical,														
	Chemical and Materials Engineering	30													
	Engineering Chemistry	5	х						х						х
	Math and Science Basics 3	5	х							х				х	
	Project Course in Biotechnology and Chemical Engineering	10	х	х	х		х					х	х		
	Analytical and Organic Chemistry	5	х					X		X					X
	Industrial processes and materials	5 60				Х	Х	Х	X	Х					X
2nd Voor of study	Penetione and Penetore	30													_
Zhu Tear or study	Physical and Chemical Properties of Fluids and Materials	5	x			x	x		x	x					x
	Fluid Mechanics	5	x	х		x	x	x	x	Â					x
	Mathematics in Process Technology	5	x												
	Chemical Reaction Technology	5	х			х									х
	Material and Energy Balances	5	х			х	х	х	х						х
	Heat Transfer and Energy Efficiency	5	Х			Х			Х						х
	Process Engineering	30													
	Introduction to Plant Engineering	5			х	х	х	х	х						х
	Statistics and Design of experiments	5	х						х						
	Engineering English and Communication Skills	5		v	х		X			X	X	X		X	X
	Unit Operations 1	5	x	^				x						^	x
	Process Operation Control and Maintenance	5	x			х		x	x		х				x
	In total	60													
3rd Year of study	Applied Process Engineering	25													
	Lab workshop, Chemical engineering	5	х	х		х		х		х				х	х
	Unit operations 2	5	х			х		х							х
	Multidisciplinary Innovation Project	10	х	х	х		х	х	х	х		х	х	х	х
	Engineering Swedish	5		X										X	
	Finnish as a Second Language: Finnish at Work	о 20		Х										X	
	Advanced level of Plant Engineering	10	Y		Y	Y	x	x	x						Y
	Automation Technology	5	x		Â	^	Â	x	^						x
	Environment and Safety	5	x			х	x	x	x		x				x
	Elective Study Module	15													
	In total	60	60												
4th Year of study	Bachelor's Thesis	15													
	Bachelor's Thesis	15	х	х	х	х	х	х	х	х			х		х
	Work Placement	30													
	Work Placement 1	15		х			х					х	х	х	х
	WORK Placement 2	15		Х		Х	Х	Х				Х	Х	Х	X
	Elective Studies	15													
	in total	60													