

# Recommended Study Schedule for Master's Programme in Industrial Systems Analytics (ISA) 2019-2020

020719/MI

		SYKSY/AUTUMN										KEVÄT/SPRING																										
week		36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
1st year		<b>I period</b>					<b>II period</b>					<b>III period</b>					<b>IV period</b>					Complementary Studies 26 ECTS																
		OPIS0039 Personal Study Plan 0 ECTS					OPIS0025 Searching for Scientific Information 1, 1 ECTS					KENG9212 Writing Academic English 5 ECTS (autumn or spring)					STAT3120 Probability and Stochastic Processes 5 ECTS					Complementary Studies, optional courses, choose courses worth of 10 ECTS																
		KENG9212 Writing Academic English 5 ECTS (autumn or spring), or an online implementation from week 37										STAT1010 Statistical Analysis of Contingency and Regression 5 ECTS					Technology Studies 20 ECTS SATE2020 Energy Production 5 (compulsory unless completed in previous studies. If so, choose another technology course instead)																					
		KSUO5111 Finnish for Foreigners I 5 ECTS					MATH1170 Probability and Statistics 5 ECTS					STAT2020 Econometrics I 5 ECTS					Technology Studies, optional courses, choose enough to reach 20 ECTS ICAT3090 Fuzzy Systems 5 ICAT3180 Applied Signal Processing 5 ICAT3030 Computer Simulations 5 SATE3130 Smart Grid Communication 6 TUTA3230 Product and Service Design in Practice 5 TUTA2230 Innovative Product Development and Product Lifecycle Management 5 ICAT3060 Energy Chains Optimisation 5 TUTA3060 Advanced Course in Quality and Reliability Management 5 ICAT3020 C and Embedded C Programming 3 ICAT3190 Special Topics in ICT and Automation 1-5																					
		STAT2020 Econometrics I 5 ECTS					MATH2020 Discrete Mathematics 5 ECTS (self-study)					STAT3130 Mathematical Statistics 5 ECTS (self-study)					SATE2020 Energy Production 5 ECTS (self-study)					Technology Studies, optional courses, choose enough to reach 20 ECTS																
		ORMS1020 Operations Research 5 ECTS					JOHT3019 Project Management 5 ECTS					ISAN3040 Project Portfolio Management 5 ECTS					STAT3150 R Programming 5 ECTS					ICAT3120 Machine Learning 5 ECTS																
		MATH2020 Discrete Mathematics 5 ECTS (self-study)					ISAN3070 Systems Engineering 5 ECTS					STAT3150 R Programming 5 ECTS					ICAT3120 Machine Learning 5 ECTS					Modules in Major Studies 30 ECTS, choose two modules à 15 ECTS (compulsory)																
		STAT3130 Mathematical Statistics 5 ECTS (self-study)					ISAN3070 Systems Engineering 5 ECTS					STAT3150 R Programming 5 ECTS					ICAT3120 Machine Learning 5 ECTS					Master's Thesis and Maturity Exam 30 ECTS (compulsory)																
		SATE2020 Energy Production 5 ECTS (self-study)					ISAN3070 Systems Engineering 5 ECTS					STAT3150 R Programming 5 ECTS					ICAT3120 Machine Learning 5 ECTS					Industrial Project Work 5-10 ECTS (compulsory)																
		Technology Studies, optional courses, choose enough to reach 20 ECTS					ISAN3070 Systems Engineering 5 ECTS					STAT3150 R Programming 5 ECTS					ICAT3120 Machine Learning 5 ECTS					Optional Studies 5-10 ECTS																
2nd year		TUTA3230 Product and Service Design in Practice 5 ECTS										ISAN3050 Service Design 5 ECTS																										
		ISAN3010 Analytics in Project Management 5 ECTS										STAT3120 Probability and Stochastic Processes 5 ECTS																										
		STAT3140 Applied Multivariate Statistics 5 ECTS										ISAN3020 Architecture of Complex Systems 5 ECTS																										
		ISAN3060 Lean Six Sigma Statistical Control 5 ECTS										ISAN3990 Master's Thesis and Maturity Exam 30 ECTS, including all of the following parts: ISAN3995 Research Plan and Presentation 10 ECTS, ISAN3996 Master's Thesis 20 ECTS, ISAN3991 Master's Thesis Presentation 0 ECTS																										
		ISAN3990 Master's Thesis and Maturity Exam 30 ECTS, including all of the following parts: ISAN3995 Research Plan and Presentation 10 ECTS, ISAN3996 Master's Thesis 20 ECTS, ISAN3991 Master's Thesis Presentation 0 ECTS										ISAN3030 Industrial Project Work 5-10 ECTS																										
		ISAN3030 Industrial Project Work 5-10 ECTS										Optional Studies 9-14 ECTS																										

N.B. This is a recommended programme schedule – to be used as a guideline but not necessarily to be followed strictly. Discuss the selection of optional courses with the study counselor when making your Personal Study Plan (PSP). The recommended workload for one academic year is 60 ECTS, including optional courses.