

Recommended Study Schedule for Master's Programme in Smart Energy 2019-2020

Last update: 210819/MI

week	SYKSY/AUTUMN										KEVÄT/SPRING																								
	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
1st year 2019-20	I period					II period					III period					IV period					Complementary Studies 13-16 ECTS														
	OPIS0039 Personal Study Plan 0 ECTS					OPIS0025 Searching for Scientific Information 1 ECTS					KENG9212 Writing Academic English 5 ECTS (autumn or spring), or an online implementation from week 37					KENG9212 Writing Academic English 5 ECTS (autumn or spring)					STAT3130 Probability and Stochastic Processes 5 ECTS					Complementary Studies, optional courses, choose one not included in your previous studies									
	KENG9212 Writing Academic English 5 ECTS (autumn or spring), or an online implementation from week 37					KENG9212 Writing Academic English 5 ECTS (autumn or spring), or an online implementation from week 37					KENG9212 Writing Academic English 5 ECTS (autumn or spring)					KENG9212 Writing Academic English 5 ECTS (autumn or spring)					Business Studies, choose enough to reach 25 ECTS SATE3190 Future Electricity and Energy Markets & Business Concepts, 5 ECTS (autumn 2020) SATEB3020 Business Models for Battery Storages 5 ECTS (spring 2020) SATE3220 Smart Cities and Communities 5 ECTS (spring 2021) ERIK2004 Introduction to Energy Market Regulation, 5 ECTS ERIK2001 EU Energy Law and Policy, 5 ECTS ISAN3050 Service Design, 5 ECTS TUTA3290 Sustainable Supply Chain Management and Circular Economy, 5 ECTS TUTA3230 Product and Service Design and Practice, 5 ECTS TUTA3120 Supply Chain Design and Management, 5 ECTS TUTA3030 Technology Management, 5 ECTS JOHT3019 Project Management, 5 ECTS ISAN3040 Project Portfolio Management, 5 ECTS ISAN3010 Analytics in Project Management, 5 ECTS														
	KSU05111 Finnish for Foreigners 15 ECTS					MATH1170 Probability and Statistics 5 ECTS					ICAT3020 C and Embedded C Programming 3 ECTS					STAT1010 Statistical Analysis of Contingency and Regression 5 ECTS					Smart Energy Studies 50 ECTS: Smart Grids and Power Generation, choose enough to reach 30 ECTS														
	ICAT3030 Computer Simulations 5 ECTS					STAT3140 Applied Multivariate Statistics 5 ECTS					ICAT3040 Advanced Digital Electronics 5 ECTS					TITE3370 Management of Cyber Security 5 ECTS					Smart Energy Studies 50 ECTS: Digitalisation, choose enough to reach 20 ECTS														
	SATE3180 Control and Simulation of Modern Electric Drives and Systems, 5 ECTS, (autumn 2019)*					STAT3140 Applied Multivariate Statistics 5 ECTS					SATE3130 Smart Grid Communication 6 ECTS					FYSIFT3100 Present and Future Prospects in Energy Technology: Seminar Course with Industrial Viewpoint 5 ECTS (mostly online)																			
	ENERFT3110 Marine and Power Plant Engines 5 ECTS (online course)					ENERFT3120 Engine Fuels and Lubricants 5 ECTS (mostly online)					ENERFT3130 Exhaust and Flue Gas After-Treatment Technologies 5 ECTS (mostly online)					SATE3170 Smart Grids - Active Networks and Microgrids 5 ECTS*																			
	ENERFT3120 Engine Fuels and Lubricants 5 ECTS (mostly online)					SATEB3010 Battery Energy Storages in Smart Grids 5 ECTS (autumn 2019)*					ENER3130 Modeling and Simulation of Energy Systems 5 ECTS (spring 2020)					ENER3120 Distributed Energy Generation Systems 5 ECTS (spring 2020)																			
	SATEB3010 Battery Energy Storages in Smart Grids 5 ECTS (autumn 2019)*					SATEB3010 Battery Energy Storages in Smart Grids 5 ECTS (autumn 2019)*					ENER3130 Modeling and Simulation of Energy Systems 5 ECTS (spring 2020)					ENER3120 Distributed Energy Generation Systems 5 ECTS (spring 2020)																			
	Business Studies, choose enough courses to reach 25 ECTS (see the course list on the right)																																		
2nd year 2020-21	ICAT3160 Security of Embedded and Distributed Systems 7 ECTS										ICAT3120 Machine Learning 5 ECTS																								
	SATE3200 Power Electronic Applications in Smart Grids, 5 ECTS, (autumn 2020)*										ICAT3060 Energy Chains Optimisation, 5 ECTS																								
	ICAT3070 Evolutionary Computing, 5 ECTS*										ICAT3180 Applied Signal Processing 5 ECTS																								
	ENER3110, Seasonal Energy Storage and Conversion Technologies, 5 ECTS, (autumn 2020)**										ICAT3110 Intelligent Robotics 5 ECTS																								
	ICAT3070 Evolutionary Computing, 5 ECTS										ICAT3170 SoC-FPGA 5 ECTS																								
	ICAT3070 Evolutionary Computing, 5 ECTS										SATE3210 Power Systems – Analysis and Design Principles, 5 ECTS, (spring 2021)**																								
	Business Studies, choose enough courses to reach 25 ECTS (see the course list on the right)																																		
	Optional Studies 0-2 ECTS																																		
	SATE3970 Master's Thesis 30 ECTS, consisting of all the following parts: SATE3971 Research Plan and Presentation 10 ECTS, SATE3972 Master's Thesis 20 ECTS, SATE3973 Master's Thesis Presentation 0 ECTS and																																		
	Practical Training 1-5 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.

*biannual course, arranged 2019-2020
**biannual course, arranged 2020-2021