Code	Name	Credits
	Introduction to Electrical and Automation Technology BEEAP23A7	15 cr
BE00EI78-3001	Orientation to Engineering Studies	3 cr
KM00CV13-3036	Geometry and Linear Algebra	3 cr
BE00EI79-3001	Basics of Automation Technology	4 cr
VV00EI01-3019	Sustainable Development.Now	2 cr
KM00EI34-3001	Finnish 1	3 cr
	Electrical and automarion Engineering Working Methods BEEAP23A7	**17 cr**
KM00CV11-3049	Algebra	3 cr
KM00EI27-3001	Technical English 1	2 cr
KM00EI35-3001	Finnish 2	2 cr
BE00EI80-3001	Electrical Measurements	5 cr
BE00EI81-3001	Programmable Logics, Laboratory Excercises	5 cr
	Introduction to Power Engineering BEEAP23A7	**15 cr**
KM00CV61-3031	Differential Calculus	2 cr
KM00EI36-3001	Finnish 3	2 cr
BE00EJ15-3001	Theoretical Electrical Engineering - DC	3 cr
BE00EM54-3001	Electricity Distribution Networks	5 cr
BE00EJ17-3001	Basics of Programming	3 cr
	Measurement and Modelling Skills BEEAP23A7	**15 cr**
KM00CV62-3030	Integral Calculus	2 cr
KM00EI37-3001	Finnish 4	3 cr
BE00EJ18-3001	Measuring Systems	4 cr
BE00EJ19-3001	Mechanics	3 cr
BE00EJ20-3001	3D Modelling	3 cr
	Programming Applications 1 BEEAP22A7	**15 cr**
EA00DD52-3002	PLC Programming and Human Machine Interface	8 cr
EA00DD51-3002	Mechanics	4 cr
EA00DD50-3002	Data Networks and Data Security	3 cr
	Software Engineering BEEAP22A7	**15 cr**
EA00DD56-3002	Software Production and Testing	7 cr
EA00DD54-3002	Mathematics of Computing	3 cr
EA00DD53-3002	Fluids, Heat and Thermodynamics	3 cr
KM00DE61-3002	Negotiation skills	2 cr
	Information Technology BEEAP22A7	**15 cr**
EA00DD58-3002	Electricity, Magnetism and Waves	3 cr
KM00DE81-3002	Technical English 2	2 cr
EA00DD60-3002	International Project, part 1	1 cr
EA00DD59-3002	Industrial Internet of Things	5 cr
EA00DD57-3002	Data Analysis	4 cr
	Programming applications 2 BEEAP22A7	**15 cr**
EA00DD57-3002	Embedded Systems	6 cr
EA00DD63-3002	Statistical Mathematics and Differential Equations	3 cr
KM00DE58-3002	Technical English 3	2 cr
KM00DE58-3002	International Project, part 2	1 cr
EA00DD62-3002	Physics Laboratory Work	3 cr
	Distributed Energy Solutions BEEAP21A7	**15 cr**

EA00DD67-3001	Hybrid systems	4 cr
EA00DD69-3001	Small-scale production and storage of electricity	2 cr
EA00DD65-3001	Automation of Electrical Networks in Buildings	4 cr
EA00DD66-3001	Electrical Drives of Buildings	2 cr
EA00DD68-3001	Preliminary Thesis	3 cr
	Modern Technology Applications BEEAP21A7	**15 cr**
EA00DD74-3001	Robotics	5 cr
EA00DD73-3001	Modeling and Simulation	5 cr
EA00DD72-3001	Artificial Intelligence	5 cr
	Process Automation BEEAP21A7	**15 cr**
EA00DD76-3001	Electrical Engineering and Field Design	5 cr
EA00DD77-3001	Electric Drives	2 cr
EA00DD75-3001	Control and Automation Design	8 cr
	Production Automation BEEAP21A7	**15 cr**
EA00DD79-3001	Machine Safety	3 cr
EA00DD81-3001	Virtual Comissioning	5 cr
EA00DD80-3001	Machine Vision	4 cr
EA00DD78-3001	Electrical Design of Production Process	3 cr
EA00CW40-3001	**Maintenance BEEAP20A7**	**15 cr**