

Computer and Systems Engineering

General studies module(s)	
General studies	12 ECTS credits
Core studies module(s)	
Computer and Systems Engineering	24 ECTS credits
Special studies module(s)	
Computer Systems Engineering	18 ECTS credits
Projects and Practical Training	12 ECTS credits
Software	18 ECTS credits
Free choice courses module(s)	
Free Choice Studies	6 ECTS credits
Graduation thesis	30 ECTS credits
TOTAL	120 ECTS credits

General studies	ECTS credits
<i>General studies</i>	
Compulsory courses: 6.00 ECTS credits	
TMJ3300 - Entrepreneurship and Business Planning	6
Optional courses: at least 6.00 ECTS credits	
MLI0010 - English for Science and Research	6
MLE0010 - Estonian Language and Culture	6
MNF5510 - Critical Thinking, Ethics and Scientific Literacy	6
Core studies	
<i>Computer and Systems Engineering</i>	
Compulsory courses: 12.00 ECTS credits	
IAS0320 - Computer Systems Engineering	6
IAS0430 - Microprocessor Systems	6
Optional courses: at least 12.00 ECTS credits	
IAS0012 - Circuits, Systems, Signals	6
IAS0051 - Applied Data Communication	6
IAS0089 - Advanced Programmable Logic Controllers	6
IEE1720 - Data Acquisition Means and Methods	6
IAS0065 - Control Instrumentation	6
IAS0530 - Dependability and Fault Tolerance	6
Special studies modules	
<i>Computer Systems Engineering</i>	
Compulsory courses: 6.00 ECTS credits	
IAS0330 - Embedded Systems	6
Optional courses: at least 12.00 ECTS credits	
IAS0550 - Systems-on-Chip Design	6
IAS0031 - Modeling and Identification	6
IAS0060 - Robotics	6
IAS0340 - Digital Systems Modeling and Synthesis	6
IAS0600 - Digital Systems Design with VHDL	6
IAS0610 - Design for Test	6
IAS0620 - Verification of Digital Systems	6
EEM0080 - Advanced Robotics	6
IAS0023 - Intelligent Control Systems	6
<i>Projects and Practical Training</i>	
Optional courses: at least 12.00 ECTS credits	

IAS0730 - Teaching Practice	6
UTT0110 - Mechatronics and Smart systems project	6
IEP1010 - Prototyping	6
IAS0720 - Industrial Training	6
IAS0470 - Research Seminar	6
<i>Software</i>	
Compulsory courses: 6.00 ECTS credits	
IAS0410 - Object Oriented Programming	6
Optional courses: at least 12.00 ECTS credits	
IAS0510 - Basics of Computer Aided-Design	6
ITS8050 - Embedded Software Workshop	6
IAS0450 - Analysis of Programming Languages	6
ITI0206 - Databases I	6
IAS0460 - Software Project Management	6
IAS0420 - Foundations and Management of Cyber Security	6
Free choice courses	
Free choice courses	6
Master Thesis	30