

GROUP	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5 SUMMER STUDIES
BECEP25A2	Core competence <b>Working in Information Society</b> BB00FI55 Orientation BB00FI57 Basics of Programming BB00FI69 Introduction to Information Networks KM00FI59 Geometry and Linear Algebra BB00EO50 Introduction to Communication KM00FM66 Finnish 1	Core competence <b>Digitalization in Circular Economy</b> BB00FI67 Microcontrollers BB00FI71 Digital Services VV00FI61 Sustainable Development.Now KM00FI73 Algebra KM00FM64 Technical English 1 KM00FM67 Finnish 2	Core competence <b>Data in Circular Economy</b> BB00FI79 Databases CA00FI81 Python for Data Science BB00FI83 Circular Economy Value Chains KM00FM65 Technical English 2 KM00FM68 Finnish 3	Core competence <b>Data Analytics</b> BB00FI91 DF Data-based Decision Making BB00FI93 DF Data Analytics Tools BB00FI95 DF Quantitative Reasoning for Data Analytics BB00FI89 DF Data Analytics Project KM00FM69 Finnish 4	Core competence <b>Work Placement</b>  Profiling competence <b>Optional studies 15 cr</b>  Profiling competence <b>ICT Summer Project</b>
BECEP24A2	Core competence <b>Circular Economy</b> BB00EO86 Circular Economy Principles TB00FS83 DF Circular Business Design TB00EP00 DF Design Thinking BB00EO90 Project Management BB00EO92 Innovation Methods	Core competence <b>IoT - Internet of Things</b> BB00EO94 Basics of IoT BB00EO96 IoT Project BB00EO98 Basics of 3D Modelling and 3D Printing	Core competence <b>Smart Sensors</b> BB00EP04 Systems and Sensors BB00EP06 Sensor Systems Project BB00EP08 Electricity and Magnetism BB00EP10 Professional Communication KM00EP12 Differential Calculus	Core competence <b>Cloud Services</b> BB00EP14 Principles of Cloud Services BB00EP16 User Interface Design and Usability BB00EP22 Cloud Services Project BB00EP18 Applied Physics KM00EP20 Integral Calculus	
BEBEP23A2	Profiling competence <b>3D Modelling and Printing</b> BB00DX14 3D Modelling and Printing	Profiling competence <b>Development Project</b> BB00DI63 Development Project		Profiling competence <b>Data Science*</b> TK00FR36 Mathematics for Data Science with Python TK00FR37 Applied Machine Learning TK00FR38 Big Data Analytics	
	Profiling competence <b>Machine Learning &amp; AI*</b> TK00ED12 Solutions in Pattern Recognition TK00ED14 Artificial Intelligence TK00ED16 Development of Artificial Intelligence Applications	Profiling competence <b>Cybersecurity*</b> TK00FR42 Cybersecurity TK00FR43 Cyber Attacks and Defense Methods TK00FR44 Penetration Tests, Audits and Red Teaming			
	Profiling competence <b>Management and Responsible Procurement</b> (non-stop module) BB00DX09 Team Work Management and Finance BB00DX10 Value Driven Procurement BB00DX11 Lean as the Cornerstone of Efficiency BB00DX12 Management and Responsible Procurement Project				
BEBEP22A2	Profiling competence <b>Optional studies 15 cr</b>				
	Core competence <b>Work placement</b>				
	Final thesis 15 cr				