Information and Communication Technology, Circular Economy - MODULE MAP 2024-2025

GROUP	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5 SUMMER STUDIES
BECEP24A2	Core competence Working in Information Society BB00EW37 Orientation BB00EO44 Basics of Programming VV00EO46 Sustainable Development.Now KM00EO48 Geometry and Linear Algebra BB00EO50 Introduction to Communication KM00EI34 Finnish 1	Core competence Digitalization in Circular Economy BB00EO54 Microcontrollers BB00EW38 Introduction to Information Networks BB00EO58 Digital Services KM00EO60 Algebra KM00EI27 Technical English 1 KM00EI35 Finnish 2	Core competence Data in Circular Economy BB00EO66 Databases CA00EO68 Python for Data Science BB00EO70 Circular Economy Value Chains KM00El28 Technical English 2 KM00El36 Finnish 3	Core competence Data Analytics BB00EO76 DF Data-based Decision Making BB00EO78 DF Data Analytics Tools BB00EO80 DF Quantitative Reasoning for Data Analytics BB00EO82 DF Data Analytics Project KM00EI37 Finnish 4	Core competence Work Placement Profiling competence Optional studies 15 cr Profiling competence cSchool ICT Project
BEBEP23A2	Core competence Circular Economy BB00DX01 Circular Economy Principles LT00DJ78 Design Business Ideas to Circular Business TB00DI26 DF Design Thinking BB00DI46 Project Management BB00DX02 Innovation Methods	Core competence IoT - Internet of Things BB00EN70 Basics of IoT BB00EJ71 IoT Project BB00EJ69 Basics of 3D Modelling and 3D Printing	Core competence Smart Sensors BB00DX06 Smart Systems and Sensors BB00EJ73 Sensor Systems Project BB00DI54 Electricity and Magnetism BB00DX05 Professional Communication KM00CV61 Differential Calculus	Core competence Cloud Services BB00DI55 Principles of Cloud Services BB00DI57 User Interface Design and Usability BB00DX08 Cloud Services Project BB00DI58 Applied Physics KM00CV62 Integral Calculus	
BEBEP22A2	Profiling competence 3D Modelling and Printing BB00DX14 3D Modelling and Printing			Profiling competence Development Project BB00Dl63 Development Project	
	Profiling competence Machine Learning & Al* TK00DH12 Solutions in Pattern Recognition TK00DH13 Development of Artificial Intelligence Applications TK00DH14 Artificial Intelligence			Profiling competence Data Science* TK00DH09 Mathematics for Data Science with Python TK00DH10 Big Data Technologies TK00DH11 Applied Machine Learning	
	Profiling competence Management and Responsible Procurement BB00DX09 Team Work Management and Finance BB00DX10 Value Driven Procurement BB00DX11 Lean as the Cornerstone of Efficiency BB00DX12 Management and Responsible Procurement Project				

GROUP	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5 SUMMER STUDIES
BEBEP22A2	Profiling competence Global Sustainability KK00EK79 Cross-Cultural Communication KK00EK80 Sustainable Society and Global Economy KK00EK81 Creating Sustainable Solutions				
BEBEP21A2	Profiling competence Optional studies 15 cr				
	Core competence Work placement				
	Final thesis 15 cr				