Information and Communication Technology, Circular Economy - MODULE MAP 2026-2027

*** = Check the prerequisites from the guidance counselor before course enrolments.**

GROUP	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5 SUMMER STUDIES
BECEP26A2	Core competence **Working in Information Society** BB00FZ49 Orientation BB00FZ51 Basics of Programming KM00GA83 Functions and Equations KM00GB60 Introduction to Communication VV00EH16 Sustainable Development.Now KM00FZ57 Finnish 1	Core competence **Digitalization in Circular Economy** BB00FZ61 Microcontrollers BB00FZ63 Digital Services BB00FZ65 Introduction to Information Networks KM00GA84 Geometry and Vectors KM00FZ71 Technical English 1 KM00FZ69 Finnish 2	Core competence **Data in Circular Economy** BB00FZ73 Databases CA00FZ75 Python for Data Science BB00FZ77 Circular Economy Value Chains KM00FZ81 Technical English 2 KM00FZ79 Finnish 3	Core competence **Data Analytics** BB00FZ85 DF Data-based Decision Making BB00FZ87 DF Data Analytics Tools BB00FZ83 DF Data Analytics Project KM00FZ91 Finnish 4	Core competence **Work Placement** Profiling competence **Optional studies 15 cr** Profiling competence **ICT Summer Project**
BECEP25A2	Core competence **Circular Economy** BB00FI99 Circular Economy Principles TB00FS83 DF Circular Business Design TB00FJ03 DF Design Thinking BB00FJ07 Project Management BB00FJ01 Innovation Methods	Core competence **IoT - Internet of Things** BB00FJ09 Basics of IoT BB00FJ11 IoT Project BB00FJ13 Basics of 3D Modelling and 3D Printing	Core competence **Smart Sensors** BB00FJ15 Systems and Sensors BB00FJ21 Sensor Systems Project BB00FJ17 Electricity and Magnetism BB00EP10 Professional Communication KM00FJ19 Differential Calculus	Core competence **Cloud Services** BB00FJ25 Principles of Cloud Services BB00FJ29 User Interface Design and Usability BB00FJ27 Cloud Services Project BB00FJ31 Applied Physics KM00FJ33 Integral Calculus	
BECEP24A2	Profiling competence **3D Modelling and Printing** BB00EP26 3D Modelling and Printing	Profiling competence **Development Project** BB00EP48 Development Project		Profiling competence **Data Science*** TK00FR36 Mathematics for Data Science with Python TK00FR37 Applied Machine Learning TK00FR38 Big Data Analytics	
	Profiling competence **Machine Learning & AI*** TK00FR41 Development of AI Applications TK00FR40 AI Search Algorithms TK00FR39 Neural Networks for Computer Vision	Profiling competence **Cybersecurity*** TK00FR42 Cybersecurity TK00FR43 Cyber Attacks and Defense Methods TK00FR44 Penetration Tests, Audits and Red Teaming			
	Profiling competence **Management and Responsible Procurement** (non-stop module) BB00EP34 Team Work Management and Finance BB00EP36 Value Driven Procurement BB00EP38 Lean as the Cornerstone of Efficiency BB00EP40 Management and Responsible Procurement Project				
BEBEP23A2	Profiling competence **Optional studies 15 cr**				
	Core competence **Work placement**				
	Final thesis 15 cr				