Structure of studies

The studies for a Bachelor's Degree programme in Internet of Things comprise 240 ECTS. According to the curriculum one academic year corresponds to 60 ECTS, which is equivalent to 1600 hours of a student's workload. The studies consist, among others, of lessons in class, distance learning and independent studies as well as web-based learning and internship. The studies include working life-oriented research and development activities.

	Extent	Description of studies
Common Basic Studies	50 ECTS	Common Basic studies provide background information and skills in the field of Internet of Things, which are further deepened in professional and advanced studies. Basic studies also provide communication, English and basic knowledge of Finnish or Swedish and mathematical and natural sciences. Common Basic Studies are integrated to support the professional goals of the field.
Professional Studies	115 ECTS	Professional Studies provide strong foundation on programming, networking, electronics, cybersecurity, and artificial intelligence. Practical applications of knowledge and skills are emphasized. Constant evolution of IoT ecosystem and its devices and methods are in the focus of Professional Studies. These studies also build skills for teamwork, project management and public presentations.
Advanced Studies	15 ECTS	In Advanced Studies the student can deepen his/her skills in IoT Embedded Engineering or IoT Cloud Engineering specializations. IoT Embedded Engineering focuses on advanced electronics and embedded and real-time programming. IoT Cloud Engineering focuses on big data and its visualization and a cloud certification.
Internship	30 ECTS	During the internship, the student familiarizes himself with practical work activities and acquires skills for choosing different modes of operation and work methods, for use and application. In training, you also learn to develop customer- and working-life-oriented new solutions and operational quality. Internship prepares professional skills for the demands of working life by deepening and helping to find employment the field of education and specialization.
Thesis	15 ECTS	The thesis is the student's working life-related learning process, which experts support, guide and evaluate. The aim is that the student develops his/her professional field with his thesis at the same time as

		the process deepens his/her expertise in the chosen subject. Theses can be investigative, functional or it can involve a subjective expression of a creative assignment. In thesis process the student is responsible for • searching for a thesis idea and working life connection • familiarization with the assignment area of the thesis and the assignment setting • performing and reporting the assigned task • finalizing the thesis and preparing the information material. The thesis offers a flexible gateway to transition into working life and a good networking opportunity in the professional field.
Elective Studies	15 ECTS	Professional Studies provide strong foundation on programming, networking, electronics, cybersecurity, and artificial intelligence. Practical applications of knowledge and skills are emphasized. Constant evolution of IoT ecosystem and its devices and methods are in the focus of Professional Studies. These studies also build skills for teamwork, project management and public presentations.
Total	240 ECTS	