



## Bachelor of Engineering, Information and Communications Technology

Information and Communications Technology (ICT) deals with technologies, methods and tools for computerized analysis and exchange of data, e.g. software applications, data networks and hi-tech electronic devices. The development in the ICT field is rapid. ICT-based devices are present in homes, offices, industry, vehicles, medical devices, administrative systems etc. New applications are typically more complex than in the previous generations, and hence require state-of-the-art knowledge and skills in product development, deployment as well as maintenance.

An ICT engineering graduate has wide and practically-oriented fundamental knowledge and skills in order to be able to grow to a future expert in ICT. After graduation, you master the professional concepts in general, and you are able to follow and contribute to the development of topics connected to your competence track in particular. You have capabilities to promote life-long learning, you possess language and communication skills, and you can work as an active member of a team in international environment. Many students start their own businesses already during their studies, or select the entrepreneur's path later.

### Study contents

The curriculum consists of basic, professional and optional studies as well as practical training and a Bachelor's Thesis project. Most of the basic studies are taught during the first study year, and they guide you into the topics of your future professional field. During the second study year you can focus either on modules in software design or data networks.

At the beginning of the third academic year your professional studies focus on an advanced topic, a so called competence track. You can select your track between two alternatives:

- The competence track in **Embedded Software** focus on software development for microchip controlled devices such as elevators, home electronics and mobile devices. Core competencies in embedded software design are C programming and real-time operating systems.
- **Data Networks and Information Security** students concentrate on topics in IP networks, servers and enterprise-level information security. In addition, ICT service processes and project management are important elements for future professionals.

## Bachelor of Engineering, Information and Communications Technology

**Degree programme**  
Information and Communications Technology

**Type of education**  
Bachelor's degree

**Applicants / starting**  
-/40 (year 2017) 554/40 (year 2016), 648/40 (year 2015)

**Degree title**  
Bachelor of Engineering

**Duration and workload**  
240 ECTS credits / 4 years

**Campus address**

**Study location**  
Turku

**Next application period**  
Joint application 10 - 25  
January 2017

**Contact information**  
Janne Ahtinen

# Bachelor of Engineering

## Information and Communications Technology

(full-time studies, 240 ECTS credits / 4 years)

### 1. year

• Higher Education Studies and Working Life Skills	2 cr	• Calculus	5 cr
• English for IT	5 cr	• Topics in Applied Mathematics	5 cr
• Finnish 1	5 cr	• CCNA1: Introduction to Networks	5 cr
• Engineering Physics	5 cr	• Introduction to Electronics and Transmission	5 cr
• Measurements in Physics	5 cr	• Introduction to Programming	5 cr
• Engineering Precalculus	5 cr	• Product Development	10 cr

### 2. year

• Higher Education Studies and Working Life Skills	1 cr	<b>Elective Professional Studies 2 x 15 cr:</b> <ul style="list-style-type: none"><li>• Software Design</li><li>• Computer Design</li><li>• IP Networking</li><li>• ICT Service Production</li></ul>
• Finnish 2	5 cr	
• Basic Practice	10 cr	
• Elective Studies	15 cr	

### 3. year

<b>Competence Tracks:</b> <ul style="list-style-type: none"><li>• Embedded Software</li><li>• Data Networks and Information Security</li></ul>	<b>Studies:</b> <ul style="list-style-type: none"><li>• Advanced Professional Module 1</li><li>• Innovation Project (CDIO Capstone)</li><li>• Practical Training (Field Specific)</li><li>• Elective Studies</li><li>• English Professional Skills</li><li>• Higher Education Studies and Working Life Skills</li></ul>	<ul style="list-style-type: none"><li>15 cr</li><li>15 cr</li><li>10 cr</li><li>15 cr</li><li>5 cr</li><li>1 cr</li></ul>
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### 4. year

• Advanced Professional Module 2	15 cr	• Higher Education Studies and Working Life Skills	1 cr
• Advanced Professional Module 3	15 cr	• Thesis	20 cr
• Practical Training (Professional)	10 cr		



Content of the studies (click to open the pdf file)

#### How to Apply?

Next application period is on **10 - 25 January 2017**.

Applications are submitted through the online joint application system at [www.studyinfo.fi](http://www.studyinfo.fi). Read more about joint application.

#### More information at Studyinfo

At Studyinfo you'll find

- student selection criteria
- eligibility criteria
- more information about the degree programme
- the application form

#### Go to Studyinfo

## Entrance examination

The national English-language entrance examination in Technology will be organised on Thursday **20 April 2017**.

The entrance examination is a written test of 3 hours. It measures study skills and aptitude for technological fields, as well as English language proficiency. The language test is compulsory for all applicants and it will be assessed on a scale of pass/fail. Only applicants having passed the language test will be considered for admission. The examination is common to everyone regardless of their educational background. No calculators may be used in the examination. The entrance examination result is valid for the duration of the application period in question. Applicants must score at least 10 out of the maximum of 40 points in the entrance examination.