

Electrical and Automation Engineering, 8 - 16, module map, academic year 2016 - 2017

1. period

2. period

3. period

4. period

BEAUP16A7

Fundamentals of Automation Engineering, 15 cr

- Fundamentals of Automation Engineering and Logic Programming
- Working English 1
- Mathematics 1
- Physics 1
- Theoretical Electrical Engineering – DC
- Study Skills and Introduction to Work Safety
- Engineering Project and CAD

Practical Automation Applications, 15 cr

- Automation Engineering Laboratory Works
- Practical Finnish 1 (intl students)
- Opiskeluviestintä (Finns)
- Mathematics 2
- Physics 2
- Theoretical Electrical Engineering – AC
- Engineering Project and Innovation

ICT in Automation, 15 cr

- Logic Programming, Programming Languages and Human Machine Interface
- Mathematics 3
- Physics 3
- Telecommunication and Information Security

Applied Metrology, 15 cr

- Metrology
- Practical Finnish 2 (intl students)
- Asiantuntijaviestintä 1 (Finns)
- Working English 2
- Mathematics 4
- Metrology Laboratory Works
- Electronics

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Power Engineering, 15 cr

- Power Engineering and its Practical Applications
- Practical Finnish (intl students)
- Viestintä (Finns)
- Mathematics of Power Engineering
- Swedish (Finns)

Application Software, 15 cr

- Programmable Logic Controller Programming
- Practical Finnish (intl students)
- Viestintä (Finns)
- Information Security
- Scientific Phenomena

Process Automation, 15 cr

- Fieldbuses
- Process Technology
- Professional English
- Instrumentation
- Process Automation Mathematics

Embedded Systems, 15 cr

- Microcontroller
- CAD and Technical Documentation
- Career Guidance
- Application Development Environment

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Automation and Electrical Wiring Design, 15 cr

- Automation System
- Field Design
- Electricity Design for a Production Process
- Practical Design Work in Professional English

Applications of Automation Engineering, 15 cr

- Security Automation
- Home Automation
- ERP and MES Solutions in Production
- Wireless Technology in Automation

Automation and Control, 15 cr

- Control Engineering
- Hydraulics and Pneumatic Systems
- Application Development Environment and Practical Applications for PLC Programming

Maintenance, 15 cr

- Maintenance Economics
- Reliability Centered Maintenance
- Maintenance Information System
- Applying Maintenance

 Compulsory module

 Profile module

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