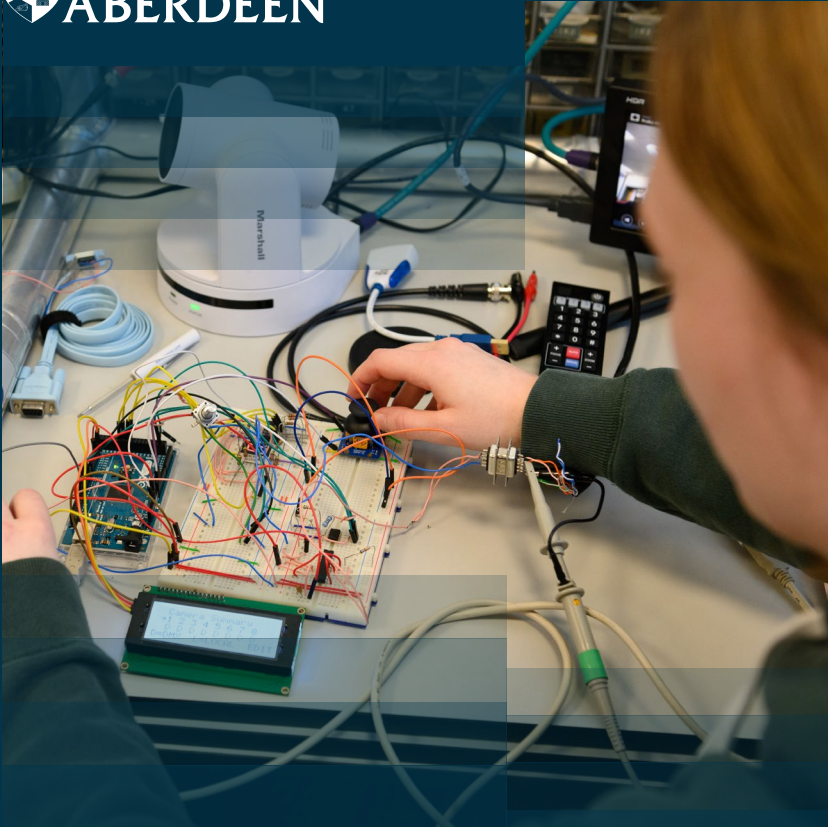




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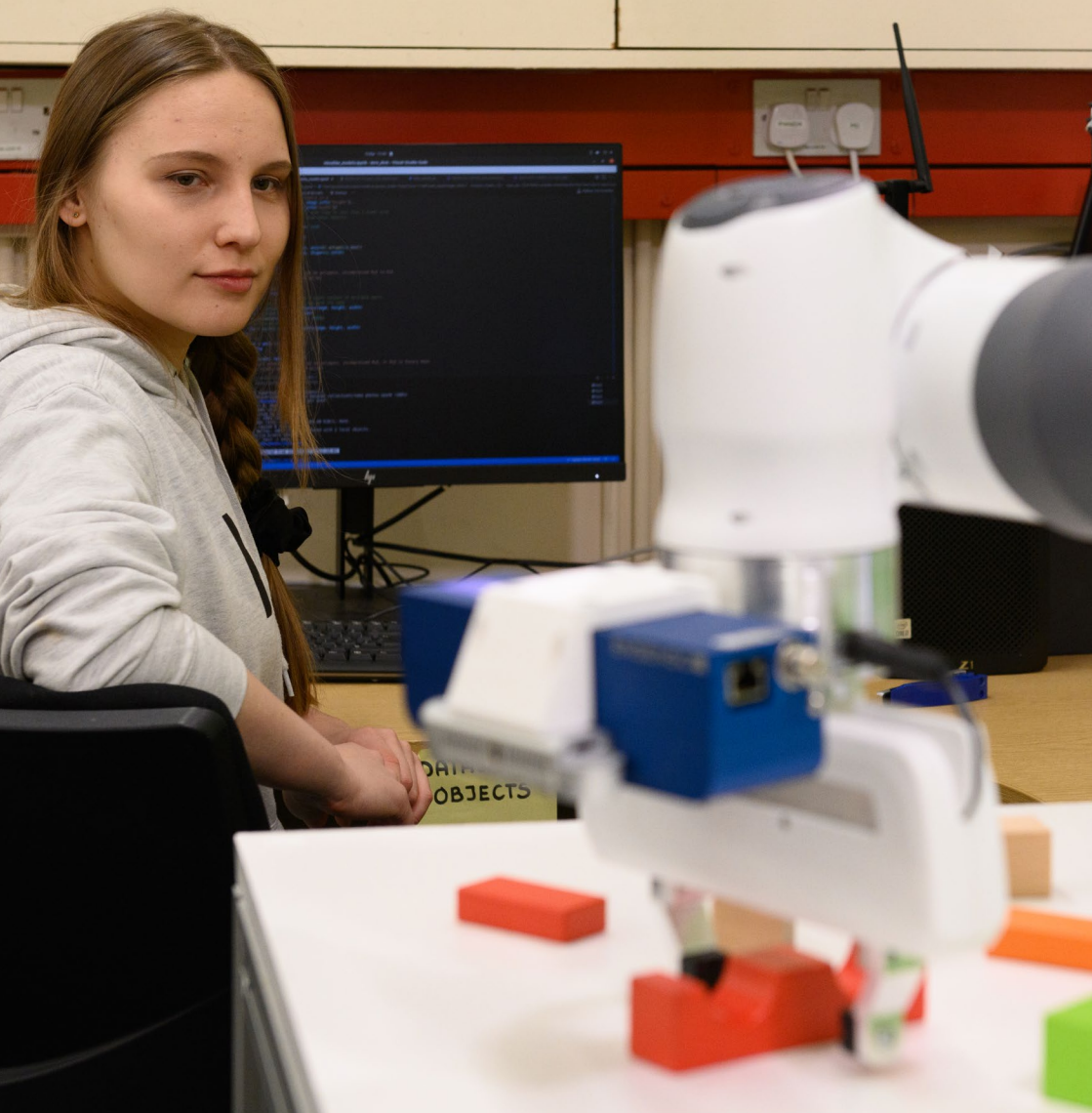
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School of Engineering

Electrical and Electronic Engineering

UNDERGRADUATE GUIDE



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Why Study Electrical and Electronic Engineering

Electrical and Electronic Engineering (EEE) is fundamental to modern society, encompassing everything from advanced computer systems and digital circuits to photonics and cutting-edge technologies like automated cars, robotics, medical equipment, and the next generation of mobile data transmission.

At Aberdeen, you will get to use your imagination, creativity and knowledge to supply and improve upon the complex systems needed by today's society. You might design machines that supply power to our homes, digital control systems for aircraft or put an entire computer system on a single silicon chip.

Our teaching is supported by our excellent workshop and laboratories dedicated to satellite communications, robotics, lasers and computer-aided design, as well as many others.



Accreditation

Our degrees are accredited by the Engineering Council and are your first step towards achieving Chartered Engineer status with the Institution of Engineering and Technology (IET). Our EEE degree programmes are accredited by the Institution of Engineering and Technology (IET).

Electrical and Electronic Engineering Degree Programmes

BEng (4 Years)

- BEng Electrical and Electronic Engineering
- BEng Electronic and Software Engineering

MEng (5 Years)

- MEng Electrical and Electronic Engineering
- MEng Electrical and Electronic Engineering with Renewable Energy
- MEng Electrical and Electronic Engineering with Robotics
- MEng Engineering in Electronic and Software Engineering
- MEng Mechanical and Electrical Engineering

Find out more at www.abdn.ac.uk/study

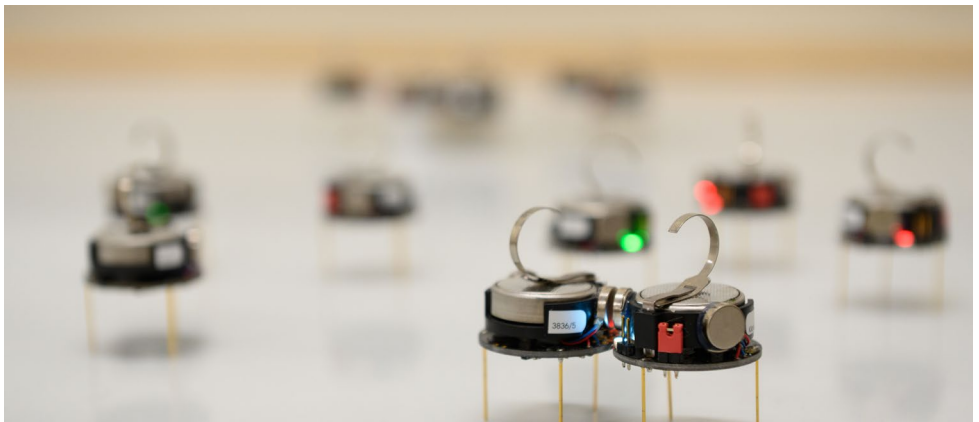
Industry Links and Employability

According to the Royal Academy of Engineering, Aberdeen is one of 13 engineering hot spots in the UK with over 8,000 engineering businesses across the city and surrounding region. The School of Engineering has strong links with industry, including local, national and international organisations, who support our teaching through guest lectures and seminars, placement opportunities, site visits and scholarships.

Electrical and Electronic Engineering Society

The University of Aberdeen's student-run EEE Society hosts regular events, including a Robotics League competition, incorporating CAD and programming skills, as well as regular social events.

You can learn more about the EEE Society at [facebook.com/EEESocAbdn/](https://www.facebook.com/EEESocAbdn/)



What You'll Study

This is an example course list for the four-year BEng and five-year MEng degrees in Electrical and Electronic Engineering. For full details of our various degree programmes, please refer to the relevant pages on our online prospectus at www.abdn.ac.uk/study

Year 1

- Principles of Electronics
- CAD and Communication in Engineering Practice
- Circuit Analysis and Design
- Engineering Mathematics 1
- Fundamentals of Engineering Materials
- Fundamental Engineering Mechanics

Year 2

- Fluid Mechanics and Thermodynamics
- Design and Computing in Engineering Practice
- Process Engineering
- Engineering Mathematics 2
- Electrical and Mechanical Systems
- Electronic Systems

Year 3

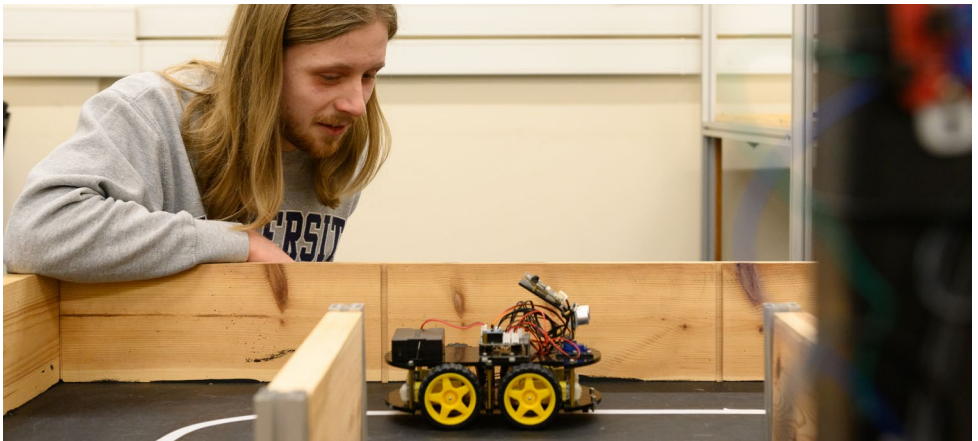
- Control Systems
- Engineering Analysis and Methods 1a
- Signals, Systems & Signal Processing
- C / C++ Programming
- Communications Engineering 1
- Electrical and Electronics Engineering Design
- The Engineer in Society
- Electrical Power Engineering
- Digital Systems

Year 4

- Sensing and Instrumentation
- Electrical Machines and Drives
- Computer and Software Engineering
- Communications Engineering 2
- Group Design Project
- Individual Project

Year 5 (MEng only)

- Mathematical Optimisation
- Optical Systems and Sensing
- Renewable Energy Integration to Grid
- MEng Group Design
- Advanced Control Engineering
- Modern Technologies in Electrical and Electronic Engineering
- Three elective courses from a range of options



Our Interdisciplinary Approach

Professional engineers in today's world are required to work with colleagues from a range of engineering disciplines. All engineering students at the University of Aberdeen undertake studies from electrical and electronic, civil, chemical, mechanical and petroleum engineering during their first two years.

This ensures our graduates are experienced and knowledgeable about the various skills and challenges each discipline would face, making them excellent choices for any engineering team.

This approach also gives students flexibility in their degree - rather than being locked into a specific programme when applying, our students can choose the path that they prefer once they have experienced all five disciplines.

This ensures our graduates are experienced and knowledgeable about the various skills and challenges each discipline would face, making them excellent choices for any engineering team.

This approach also gives students flexibility in their degree - rather than being locked into a specific programme when applying, our students can choose the path that they prefer once they have experienced all five disciplines.

Careers

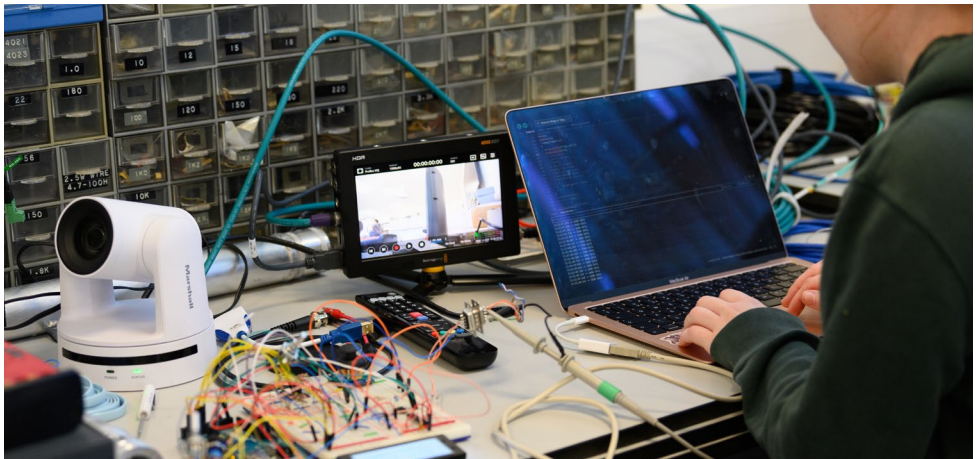
Electrical and electronic engineering careers span many different roles and industry sectors, including power stations, offshore wind farms, computer components, specialised computers for industrial tasks, internet engineering, the design of instrumentation and much more.

Recent graduate job roles have included:

- ROV Project Manager
- Subsea Controls Engineer
- Automation Control Engineer
- Software Engineer
- Telecoms Software Engineer
- Engineering Project Coordinator

Recent graduates work at companies such as:

- Cisco Systems
- Huawei
- SMT
- Lufthansa
- Railways Network





Chiara Ferdynus

MEng Electrical and Electronics Engineering





I only decided to study Electrical Engineering halfway through my second year at university. Like most high school students, I did not know exactly what I wanted to study. I really enjoyed maths, physics and problem solving but didn't know which engineering discipline would suit me best. That is why Interdisciplinary Engineering seemed like the optimal choice as it gave me a chance to explore multiple degree programs and make a decision based on my experience.



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