



# engineering+



[edinburghcollege.ac.uk/engineering](http://edinburghcollege.ac.uk/engineering)  
0131 660 1010

Edinburgh College is a charity registered in Scotland  
Charity Number SC021213

discover...

create...

achieve!



# at the forefront of modern engineering

at edinburgh college we offer an exciting range of courses, encompassing the latest techniques which are designed to respond to the needs of industry so you can develop the essential skills you need to build a successful career.



Demand for engineering professionals is set to rise in the next few years due to advances in technology and changes in the industry.

## we offer courses within four key industry areas:

- Electrical and Electronic engineering
- Automotive Engineering
- Mechanical Engineering
- Science

Creative thinking and the ability to problem solve are at the core of the engineering industry and our comprehensive course portfolio covers a wide range of disciplines from visualising, designing, constructing and testing new technologies ■

# welcome to engineering+

established strong connections with employers  
gives our students the best possible links into  
work and industry



Edinburgh College has developed an excellent reputation for quality engineering training, delivering an excellent portfolio of further and higher engineering courses as well as offering bespoke training for professionals.

The modern purpose built facilities which give

an overview of the latest technologies provide an exceptional learning environment and include:

- Scotland's first Solar Meadow Teaching Centre
- Industry standard workshops
- Outdoor oil test rig and simulator
- McTaggart Scott Hydraulics, Pneumatics and PLC Laboratory
- Electric car project

By working closely with industry we are able to make sure that you develop the skills that employers and industry leaders are looking for. In addition to this many of our lecturers are industry professionals which will give you the competitive advantage of learning from people who have had years of experience in their field. Our current students have used these connections

to their advantage to find part-time work, develop their practical skills and seek jobs after graduation. Some of our programmes also offer the opportunity to complete a work placement ■



# engineering

engineering encompasses a wide range of industries. the potential career opportunities are vast with an extensive range of roles in specialist areas across a variety of levels.



The Falkirk Wheel

Edinburgh College offers engineering courses that are required by industry and are aligned to industry needs. We offer real life working environments using current technologies across all disciplines.

Within our engineering department we are able to offer you a broad curriculum which includes:

- Mechanical Engineering
- Manufacturing Engineering
- Heating and Ventilation
- Fabrication and Welding
- Mechanical maintenance
- Measurement and Control engineering
- Petroleum Engineering.

## your first step to a rewarding career as an engineer

Our courses are all approved awards and allow you access to the next stage of your further education. We are able to offer progression courses from entry level to HND. Engineering also has an associate student programme in partnership with some of Scotland's leading universities if you wish to progress your studies further ■



## case study → solar meadow

Developed by SSE Energy Projects

**The Solar Meadow** with over 2,500 photovoltaic panels is the first teaching project of its kind in Scotland that will help not only provide the next generation of engineers to develop essential skills for the growing renewable energy sector, but also allow the College to become less self-sufficient on more traditional forms of energy such as fossil fuels.

Designed not only with energy benefits in mind, the Solar Meadow site works effectively as an outdoor classroom. The site will allow you to analyse the interaction between biodiversity and solar technology, as well as monitor and assess the operation and performance of solar panels ■

## oil and gas industry

The oil and gas industry is one of the key drivers of Scotland's economy. A multi-million pound industry, there are employment opportunities in a wide range of significant roles.

**Edinburgh College is one of only three approved training centres for OPITO in the UK.** We have successfully trained thousands of apprentices for the oil and gas industry.



In 2012, an Edinburgh College apprentice was named OPITO's overall Apprentice of the Year – the fourth year running this accolade has gone to the College ■

# electrical engineering

**electrical engineering is a dynamic and growing field encompassing a large number of disciplines.**

As an electrical engineer you could specialise in a variety of fields including microelectronics, communications, signal processing, control systems, computers, and robotics. There is a wealth of diverse and interesting roles to choose from.

## **specialist courses and apprenticeships for full or part-time studies**

Edinburgh College offers a number of specialist courses available within our Electrical Engineering department ranging from NC level through to HND, with apprenticeships on offer to individuals who may already be in employment. We also offer an Associate Student Programme which means that you will begin your studies at the College on an HNC/D level course and then



progress onto third year at our partner University to complete your degree.

Using up-to-date technology and equipment with interactive course materials, our industry experienced lecturers will give you the support and guidance you need to work towards a career in Electrical Engineering.

Our courses are particularly suited to students who are interested in becoming an electrician, electrical technician or engineer, or an electronic engineer ■



# automotive engineering

**the automotive industry is one of the world's most important economic sectors.**

If you wish to enter this market as an automotive engineer you can expect to be involved in the design, manufacturing and operation of ground based vehicles including motor vehicles, towed vehicles, motorcycles, buses and trucks.

Edinburgh College's automotive engineering department specialises in full-time and short courses covering:

- light vehicle maintenance and repair
- heavy vehicle maintenance and repair
- vehicle body repair and paint

By undertaking one of our courses you will gain valuable practical skills as a result of development time spent in the vehicle workshops. Our experienced lecturers will keep you up to date on the most recent innovations of automotive technology which in turn, will prepare you for a successful career within the diverse areas of the industry.



Our courses provide an excellent skills platform and can lead to career opportunities as an apprentice or diagnostic technician, a master or body shop technician or a vehicle parts specialist.



## gain valuable experience working in our electrical vehicle centre

Edinburgh College is fortunate to be at the forefront of electrical technology with its own fleet of electrical vehicles. In an exciting venture working with our partners Mitsubishi and SEStan, you will be able to monitor our fleet, gathering data on performance and cost effectiveness along with staff in our Research Centre. This project has attracted



backing and involvement from Edinburgh Napier University and St Andrews University, as well as other companies allowing the project to expand across Scotland. ■

# science

**if you enjoy science and maths and would like to pursue a science-related career a course in applied sciences could be the answer for you.**



If you enjoy science and maths and would like to pursue a science-related career a course in Applied Sciences could be the answer for you.

Our Science area covers a range of courses including:

- Applied Science at NC and HNC levels and Highers
- Intermediate 2 in Physics, Chemistry, Biology and Mathematics

This gives you the opportunity to develop your knowledge and gain a general science qualification.

## **gain the skills for a career in modern science**

Courses in Applied Sciences provide the skills and knowledge required within the modern science

industry with opportunities to progress from NC level to HNC on successful completion of the course. After that you could sign up for a University degree programme or move directly into employment. Progression into the Engineering sector, including Chemical Engineering, is an option if you wish to move into this industry.

Our Science department boasts substantial laboratory provision which allows for practical activities to be undertaken in all scientific fields. There is also the opportunity to become involved in the STEM ambassador programme and obtain additional UCAS points through the CREST awards programme.

There are some fantastic opportunities available to you on completion of your chosen course. Further study and job roles in fields of Microbiology, Biochemistry, food Science, Forensics, Chemical engineering as well as Physics, Chemistry and Biology are all possibilities ■

# course programme

## engineering

- Mechanical Engineering
- Manufacturing Engineering
- Heating and Ventilation
- Fabrication and Welding
- Mechanical Maintenance
- Measurement and Control Engineering
- Petroleum Engineering

## electrical

## engineering

- Microelectronics
- Aommunications
- Signal Processing
- Control Systems
- Computers
- Robotics

## automotive

## engineering

- Light Vehicle Maintenance and Repair
- Heavy Vehicle Maintenance
- Vehicle Body Repair and Paint

## science

- Physics
- Chemistry
- Biology
- Mathematics

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