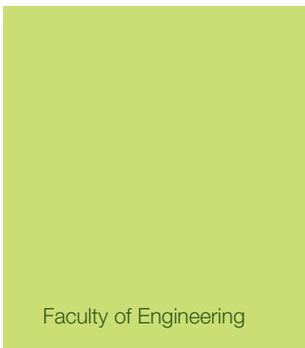


Undergraduate Engineering Design



Working at Lotus Formula 1, I often design a race car component on Monday, watch it being made mid-week then see it perform on track that weekend!

Bristol's advantage is its strong industry links. My final-year project involved collaboration with the Marine Division of Rolls-Royce. It had real business relevance which was invaluable in job interviews. My year in industry gave me contacts and experience that were instrumental in getting a great job straight out of University. Learning how to gather the knowledge needed for a project rather than learning by rote gave me a firm foundation for working in engineering.

Neil

MEng in Engineering Design with Year in Industry, 2010
Composites Design Engineer with the Lotus F1 Team



Why study engineering design at Bristol?

If you have broad engineering interests, are ambitious and would like to run large engineering projects such as space exploration, energy supply systems, and under-sea mining and oil extraction, then engineering design could be the course for you.

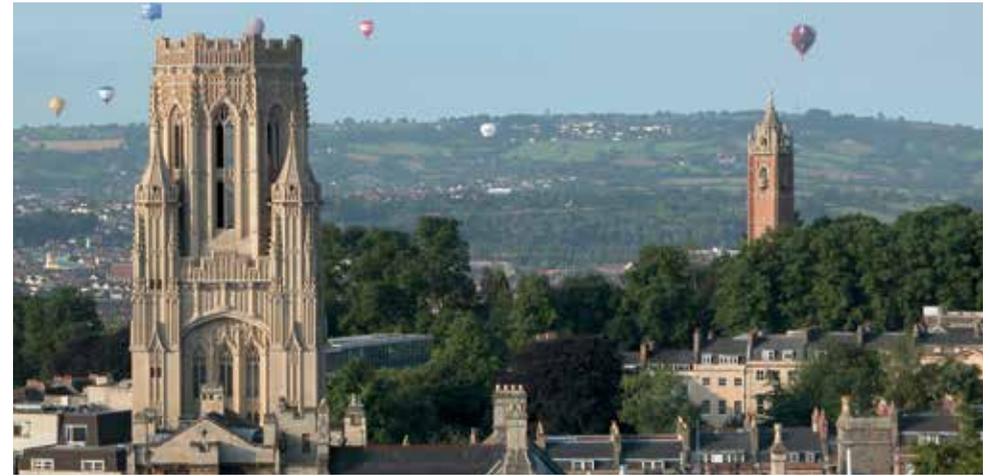
This degree teaches you the fundamentals of all the main engineering disciplines; you can then specialise to become expert in a particular field. The placements in industry will help you understand the sort of engineering you would like to do. Large-scale engineering projects involve teams of engineers, and this degree is aimed at developing engineering leaders; you'll learn teamworking skills, how to deliver persuasive presentations and to understand the impact of socioeconomic and legal constraints on engineering projects.

Engineering Design at Bristol is the only degree course in the country that has been specifically developed to educate and train students for future leadership roles in industry. This unique, accredited, five-year interdisciplinary degree was

created with the Royal Academy of Engineering and is supported by a partnership of 16 major international companies such as Atkins, Arup, Rolls-Royce and GE. These companies help select our students, provide placements and projects, and want to recruit our graduates.

30

students on this course means you benefit from small-group teaching and a good team spirit



What will I study?

Single Honours course

MEng Engineering Design with Study in Industry, five years

H150

The five-year multidisciplinary MEng Engineering Design with Study in Industry degree provides all those on the course with a common core of engineering units in structures, materials, dynamics, fluids, computing, mathematics and electronics, alongside other engineering undergraduates.

In the first year, there is dedicated teaching in design concepts and using virtual prototyping software. During your second year, these skills are enhanced through a detailed group design project, and you choose one of three pathways. The pathways are aligned with aerospace, civil and mechanical engineering.

The third year is a paid placement in industry. You will work alongside graduates, doing the same sort of work as them and learning as you go. Returning to the University for years four and five, you will have a clearer idea about what sort of engineer you want to become, so you can make good use of the wide range of options and open units available.

Research within the Faculty of Engineering is outstandingly good and specialises in the following forward-looking subject areas:

- advanced composite materials
- earthquake and geotechnical engineering
- robotics
- smart structures
- complexity science and intelligent systems
- electrical energy management
- systems, water and environmental engineering.

You will typically choose sets of optional units backed by real research expertise allowing you to become experts in areas such as:

- materials
- aeronautics
- avionics
- dynamics and control
- mechatronics
- thermofluids
- energy
- built environment
- water engineering.

To develop teamworking skills you will be involved in team design projects starting in year two. The projects in years four and five are industry-sponsored, and are major group research and design projects that address an interest of one of our industrial partners. Examples have included redesigning Blackfriars Railway Station, a security robot for Motorola, re-scoping the use of an aero-engine and a hydropower system.

Teaching and assessment

Starting university is a big step, so you will be assigned a personal tutor throughout your degree. Tutor groups of four or five students meet together typically every two weeks during your first year. Each year group also has a year tutor to monitor and assist the group's progress. You are also given a 'parent' or mentor (a senior student), who will help you with study skills and getting the most out of university life. While on industrial placements, our Industrial Liaison Officer will make sure you have a valuable set of experiences.

As this is a course for leaders, you will be expected to manage and develop your own studies and frequently make presentations to other students and staff. Much of your work will be done in teams working on design projects and case studies.

As well as the usual range of assessments, such as technical reports, in-class tests, computer-based tests and unseen examination papers, it will be necessary to assess students' skills in multi-disciplinary project management and in the processes of design. Group design projects involving self and peer-assessment are used and are assessed through presentations and written work.

89%

of students agree the course is intellectually stimulating (National Student Survey 2013)



What are my career prospects?

Our students secure graduate positions without difficulty. The experiences they gain through their industrial placements give them a real insight into the world of engineering and the vast range of options within it. Approximately three quarters of our graduates have gone directly into engineering and consultancy roles often with our partner companies. Some do further study or set up their own business and others join management consultancies.

This course will provide you with the wide range of engineering, management and entrepreneurial skills and knowledge that you will need to be successful in the world of engineering. Every employer wants the skill set developed in this degree: numeracy and mathematical modelling, spoken and written communications skills and broad understanding of how the world works.

£29k

our graduates earn starting salaries up to this amount*

*Destination of Leavers from Higher Education survey 2011/12



Making your application

Entrance requirements

Typical offer for MEng Engineering Design with Study in Industry

Please visit bristol.ac.uk/ug15-engdesign for other qualifications

A-levels A*AA including Mathematics and Physics; or AABB including A in both Mathematics and Physics (contextual offer AAB including A in Mathematics and Physics[†])

IB Diploma 38 points overall (contextual offer 35[†]) with 6, 6, 6 at Higher level including Mathematics and Physics

Access Pass Access to HE Diploma with at least 30 credits at Distinction including Mathematics and 15 credits at Merit

English Language Profile E*

GCSEs Grade C or above in Mathematics, English and Science

Selection UCAS or Common Application

Part-time study Not available

Deferred entry Welcomed

*For details of English language profiles please visit bristol.ac.uk/study/

[undergraduate/language-requirements](http://bristol.ac.uk/study/undergraduate/language-requirements)

[†]For information on contextual offers please visit bristol.ac.uk/study/undergraduate/apply/#typical-contextual-offers

This course develops engineering leaders who need to be good with people and able to organise events and themselves. They have wide-ranging interests in the built environment, how things work and the impact of financial, environmental and legal factors. We select our students by looking first at their application for information on their factual accomplishments and achievements, and then interviewing around 80 applicants using a day-long interview process.

Scholarships are offered to the five best students as assessed on an internet-administered test. Our partner companies often offer sponsorship to students after their placements.

Further information

Find out more about engineering design at Bristol: bristol.ac.uk/engineering-design



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bristol.ac.uk/citybristol

Undergraduate study website
bristol.ac.uk/ug-study

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