

# ENGINEERING

**UNDERGRADUATE  
STUDY**

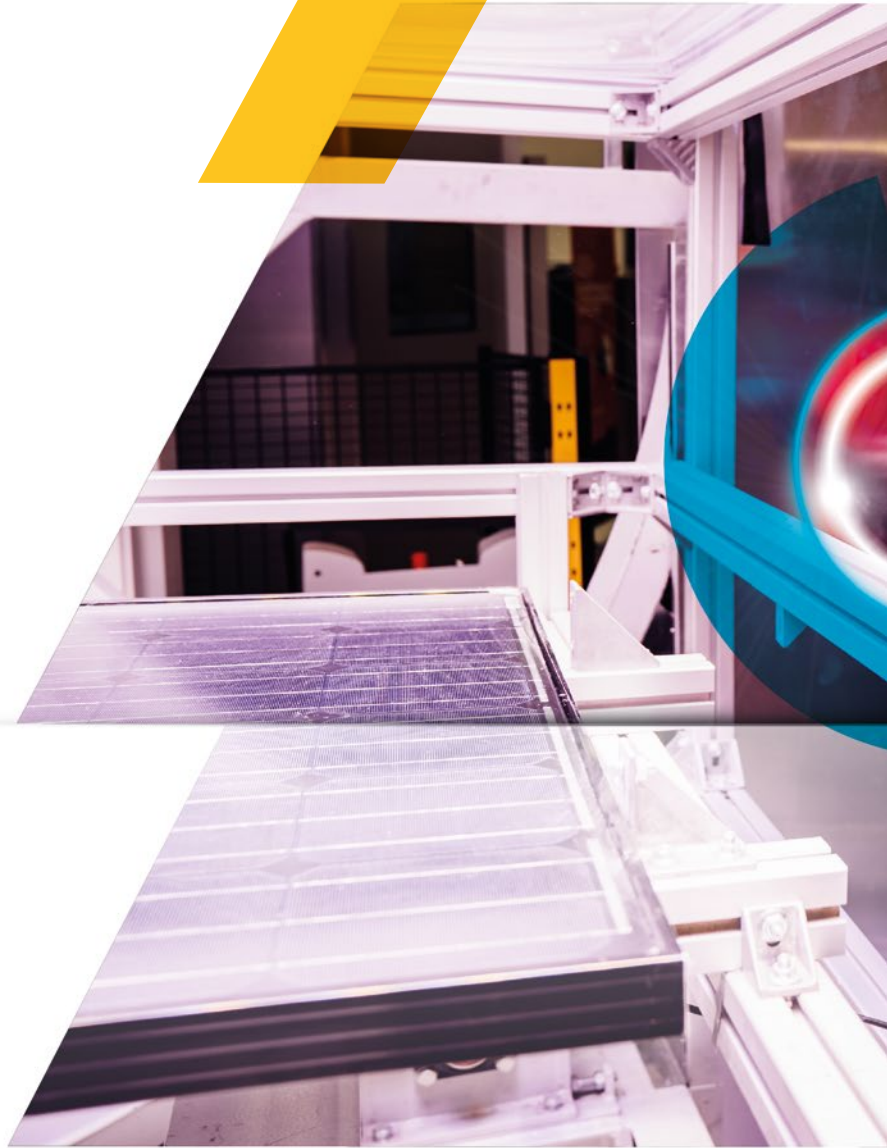
**WARWICK**  
THE UNIVERSITY OF WARWICK

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93%

OF OUR COMPLETE REF2021 SUBMISSION WAS RATED AS 'WORLD-LEADING' OR 'INTERNATIONALLY EXCELLENT'

(Research Excellence Framework, 2021)

6<sup>TH</sup> IN THE UK FOR ENGINEERING

(The Complete University Guide 2024)\*

5<sup>TH</sup> MOST TARGETED UNIVERSITY BY UK'S TOP 100 GRADUATE EMPLOYERS

(The Graduate Market in 2023, High Fliers Research Ltd)

TOP 30 ONE OF THE WORLD'S TOP 30 MOST INTERNATIONAL UNIVERSITIES

(The Times Higher Education 2023)

\*Because all our courses share a common first year, our courses are ranked together in league tables under "General Engineering" rather than under individual specialisms.



# WHY ENGINEERING AT WARWICK?

## INTEGRATED APPROACH

Our expertise covers a range of specialist areas but we know it's when we work together that the most exciting developments are made. This approach is at the heart of everything we do, and our course structure is designed to give you shared foundational understanding and ample opportunities to work and build connections across disciplines.

## GET HANDS-ON

Our courses balance academic challenge with hands-on teaching and learning. Practical work such as designing a smartphone-based electronic nose or a dominoes-playing robot give you the opportunity to expand and apply your learning. MEng students participate in a large group project which simulates the multidisciplinary practices you will experience in your career, working together in collaboration with students from other specialist courses.

## WORLD-CLASS FACILITIES

You'll have access to an impressive range of research facilities, workshops and laboratories with cutting-edge equipment.

This includes our Engineering Build Space, a design studio with manufacturing facilities – where you can see your ideas and innovations come to life, whether they are academic or personal projects. Spread across three unique spaces, the facility houses everything from discussion space, basic prototyping capability

and hand tools through to cutting-edge computer controlled manufacturing equipment and robotics. It offers a community space where students and staff can work alongside each other, explore ideas and come up with solutions to important design problems. Run by a team of Makers-in-Residence who work at the cutting-edge of design and manufacture research, you can experiment with the basics of designing and manufacturing while working side-by-side with an experienced team of creative engineers.

## COMMUNITY

The academics who teach you work at the forefront of their subjects and are making internationally significant advances. You'll also be supported by your fellow students, building meaningful friendships that you'll find become valuable professional networks.

## HEART OF INDUSTRY

We work closely with industry experts to develop your workplace skills from day one and ensure you're prepared for life after university. Our courses are delivered in partnership with Warwick Manufacturing Group (WMG), a separate Warwick academic department, renowned worldwide for its innovative links between academia and industry. Our physical location in Coventry places you close to many of the UK's biggest names in engineering and students benefit from our strong connections with industrial partners such as Jaguar Land Rover, Arup, Tata Steel and Rolls-Royce.





**THE ENGINEERING BUILD SPACE IS A VIBRANT AND CREATIVE SPACE WHERE YOU CAN HARNESS YOUR CREATIVITY, EXPLORE YOUR IDEAS, AND BRING YOUR DESIGNS TO LIFE. IT OFFERS A COMMUNITY SPACE WHERE STUDENTS AND STAFF CAN WORK ALONGSIDE EACH OTHER, EXPLORE IDEAS AND COME UP WITH SOLUTIONS TO IMPORTANT DESIGN PROBLEMS.**

## ACCREDITATION

If you aspire to achieve Chartered-Engineer (CEng) status, a degree from Warwick is a great starting point. The majority of our degrees are accredited by licensed professional engineering institutions, such as the IET, IMechE, InstMC and JBM and provide the academic component (in part or fully) needed for Chartered Engineer status. Full information about the accreditation of our courses is available on our website: [warwick.ac.uk/eng-accreditation](http://warwick.ac.uk/eng-accreditation)

## BEYOND UNIVERSITY

We ask you to start thinking about your future from day one, and encourage you to take advantage of opportunities to gain work experience, study abroad, or work in research as part of your degree. We have a dedicated Placement and Internship Officer who will work with you to identify opportunities and support you as you consider your career after university. As a result, you and each of your classmates will graduate with a unique combination of skills, experiences and relationships that will set you apart as you embark on your chosen career path.

# ENGINEERING COURSES

IF YOU'RE DRAWN TO THE APPLICATION OF MATHS AND SCIENCE TO CREATE, INNOVATE AND SOLVE REAL-LIFE PROBLEMS, THEN YOU MAY BE CONSIDERING TO STUDY ENGINEERING.

But if you've had no exposure to engineering disciplines at school or college, deciding on a specialism may not be straightforward.

At Warwick, our flexible, innovative and interdisciplinary courses enable you to experience a range of different engineering disciplines before specialising in automotive, biomedical systems, civil, electrical, electronic, manufacturing and mechanical, mechanical or systems engineering\*. Alternatively, you can choose to study a more diverse engineering curriculum or adopt a business focus.

Our courses are structured to give you choice and flexibility whilst meeting the needs of employers who want engineers with strong technical knowledge, and the ability to understand and communicate within technical and business roles.





"I chose Warwick because of its reputation and their initially general engineering course. Before coming here I only had experience in electronic engineering, but now I've been able to try the other disciplines and find the best one for me. I've actually switched to systems engineering which I wouldn't have been able to do if I'd specialised from first year."

**Jonathan, 4<sup>th</sup> year Systems Engineering student**



## ENTRY REQUIREMENTS \*

Our standard entry requirements for courses starting in 2024 are:

### **BEng**

A level: AAA to include Mathematics and Physics.

IB: 36 to include 6, 6 in Mathematics and Physics. At least one of these subjects should be at Higher Level.

### **MEng**

A level: A\*AA to include Mathematics and Physics.

IB: 38 with 6, 6, 6 at Higher Level. Mathematics and Physics are required. At least one of these subjects should be at Higher Level.

English language requirements also apply.

Applicants with a strong profile who are studying only one from A level Physics or A level Mathematics may still be considered.

## OTHER QUALIFICATIONS

We encourage applications from students with a wide range of other qualifications.

Please see the University website for more details:  
[warwick.ac.uk/study](http://warwick.ac.uk/study)

\*We also offer a joint degree in Computer Systems Engineering which does not follow the same pathway and has different entry requirements (see pages 30-31 for more details).

# COURSE STRUCTURE\*

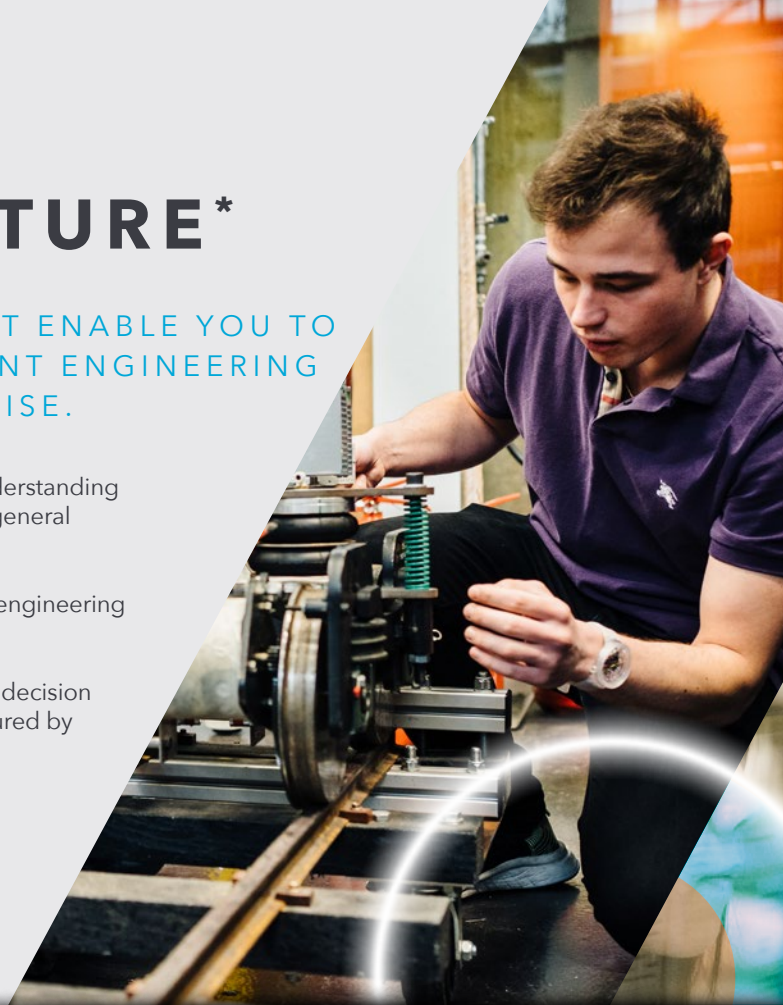
WE OFFER FLEXIBLE COURSES THAT ENABLE YOU TO EXPERIENCE A RANGE OF DIFFERENT ENGINEERING DISCIPLINES BEFORE YOU SPECIALISE.

All Engineering students at Warwick develop an in-depth understanding of the fundamental principles of Engineering by following a general engineering programme for the first year.

From second year onwards you can specialise in one of nine engineering disciplines, or continue on the general Engineering pathway.

This course structure not only ensures you make an informed decision about which specialism is right for you, but is also much favoured by industry which requires graduates that are conversant in the underlying principles of all engineering disciplines.

Students can also switch from the three-year BEng to the four-year MEng degree if academic requirements and regulations are met, and from the MEng to the BEng if they prefer to graduate earlier.



## YEAR 1

In your first year you'll be taught the fundamentals of engineering, which you will build on in later years according to your interests.

### Core modules

- Dynamics and Thermodynamics
- Electrical and Electronic Circuits
- Engineering Design
- Engineering Mathematics
- Engineering Business Management and Professional Skills
- Materials for Engineering
- Engineering Structures
- Systems Modelling, Simulation and Computation

### Projects

You will undertake a range of small projects from 'reverse engineering' to design-and-make challenges on topics including: home automation, light rail transit, car aerodynamics, and intelligent robot vehicles. These projects introduce you to industry standard software, such as SolidWorks and Matlab.



## YEARS 2 AND 3

In the second and third years our courses concentrate entirely on providing specialist engineering knowledge in your chosen discipline. Those who would rather be more business focused can choose our Engineering Business Management degree which is delivered in partnership with the prestigious Warwick Business School.

### Projects

In second year most disciplines include a core module that involves a 'design, make and test' project.

In third year students develop research skills through an individual project related to their degree, specialising in one particular area. This may be linked to our research activities, in conjunction with an external company, or support a fourth year project.

## YEAR 4 (MEng ONLY)

In the fourth year of an MEng course students study specialist material relevant to their degree course.

### Projects

MEng students participate in a large group project worth 25% of the year, which simulates the multidisciplinary working practices you will experience in your career. Students from all specialist courses work together on these projects allowing you to develop more advanced skills for the workplace and form new friendships and professional networks.

Popular projects have included the IMechE Formula Student racing car competition, Warwick University satellite project (WUSAT), Severn Trent reservoir design, building an autonomous drone and shaping the world infrastructure design for poor communities, building search-and-rescue devices with Warwick Mobile Robotics, or creating a human-powered submarine.

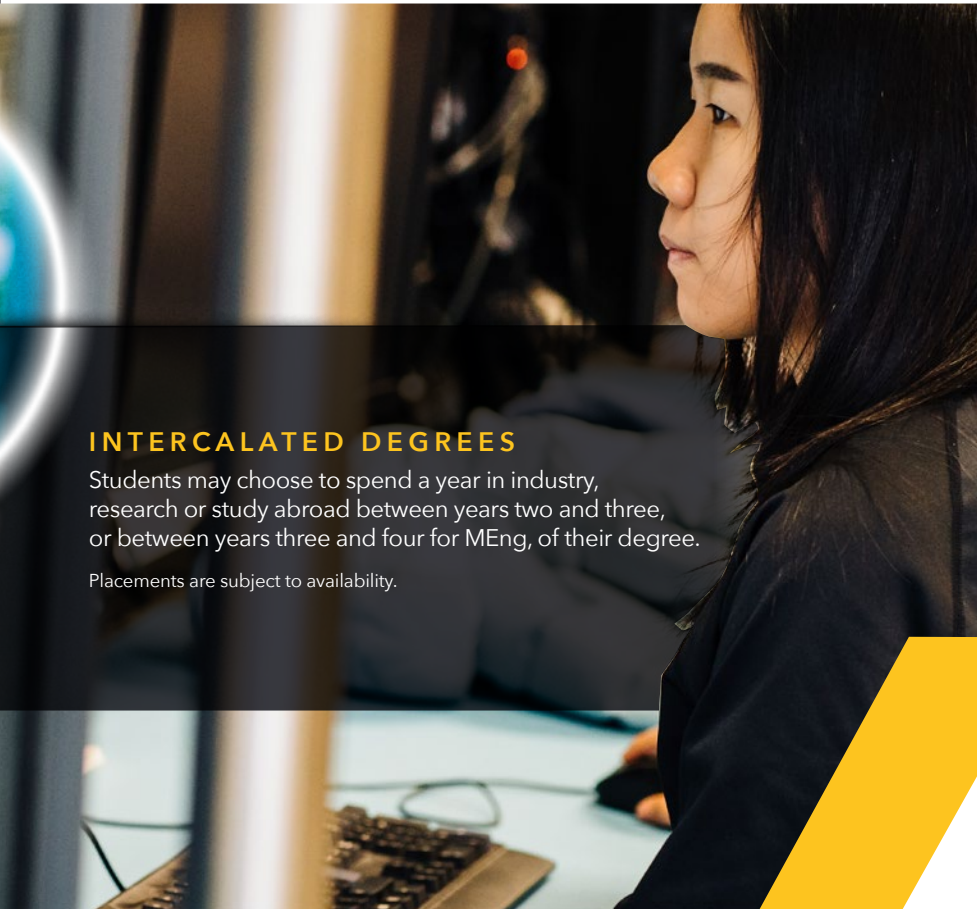
The MEng final-year multidisciplinary group project is unique to the four-year degree and is not something that you would normally find as part of a one year standalone Master's.

\*Please note that the joint course Computer Systems Engineering does not follow the course structure outlined on the page. Please see pages 30-31 for more information.

## INTERCALATED DEGREES

Students may choose to spend a year in industry, research or study abroad between years two and three, or between years three and four for MEng, of their degree.

Placements are subject to availability.



# AUTOMOTIVE ENGINEERING

**BEng Automotive Engineering**  
3 years | UCAS code: H330

**MEng Automotive Engineering**  
4 years | UCAS code: H335

Accrediting institutions:



## THE AUTOMOTIVE INDUSTRY IS SYNONYMOUS WITH CREATIVITY AND INNOVATION.

In the UK, companies like BMW, Ford, Jaguar Land Rover, Nissan and Toyota are supported by a huge network of manufacturers, employing highly skilled engineers at the forefront of their field and internationally recognised for the solutions they create. The UK is also home to six of the world's 10 Formula One teams.

Our Automotive Engineering degrees are delivered in partnership with Warwick Manufacturing Group (WMG), renowned worldwide for its innovative links between academia and industry. These degrees provide the skills and knowledge you need to stand out from the crowd. You'll develop an in-depth understanding of the fundamental principles of Engineering by following a general engineering programme for the first year. You can then specialise in Automotive Engineering, combining a firm grounding in the principles of automotive

engineering with experience of cutting-edge technology.


Coventry is at the heart of the UK's automotive sector and the National Automotive Innovation Centre is based on campus. There are plenty of opportunities for individual and group project work on topics such as active and passive vehicle safety, sustainable energy, autonomous vehicles, plus developing an electric powered racing motorcycle and our IMechE Formula Student racing cars.

By gaining skills ranging from mechanical design, electrification, power electronics, manufacturing techniques, management, ergonomics and human perception of things such as noise, vibration and performance, you will graduate as a well-rounded automotive engineer equipped for a broad range of career options.

"Warwick is in the centre of the automotive and motorsport hub in the UK with most manufacturers and suppliers of the industry being in the close vicinity. The Engineering degree at Warwick also includes an important business and operations management aspect. This is something I believe can provide a very important competitive advantage once I enter the professional world."

**Angel, 4<sup>th</sup> year Automotive Engineering student**





THE NATIONAL AUTOMOTIVE INNOVATION CENTRE, SITUATED ON THE UNIVERSITY OF WARWICK CAMPUS, IS CURRENTLY THE LARGEST AUTOMOTIVE RESEARCH AND DEVELOPMENT CENTRE IN EUROPE. THE BUILDING IS A PARTNERSHIP BETWEEN THE UNIVERSITY, WMG, JAGUAR LAND ROVER AND TATA MOTORS EUROPEAN TECHNICAL CENTRE.

## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Dynamics and Fluid Mechanics
- Electromechanical System Design
- Engineering Mathematics and Data Analytics
- Manufacturing Engineering Design
- Motor Vehicle Technology
- Systems and Software Engineering Principles
- CAD/CAM and Simulation

### Year 3

- Managing Engineering Excellence
- Systems Modelling and Control
- Design for Manufacture
- Lean Operations and Quality Improvement
- Design for Vehicle Safety
- Individual Project

### Year 4 (MEng)

- Automobile Systems, Dynamics and Control
- Vehicle Propulsion
- Automotive Materials and Processes
- Human Factors of Future Mobility
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Future Automotive Mobility; Automotive Group Project; Vehicle Electrification Fundamentals; Advanced Robotics; Design for Sustainability

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.



# BIOMEDICAL SYSTEMS ENGINEERING

**BEng Biomedical Systems Engineering**  
3 years | UCAS code: H161

**MEng Biomedical Systems Engineering**  
4 years | UCAS code: H163

Accrediting institutions:



## LEARN HOW TO SOLVE BIOMEDICAL PROBLEMS USING ENGINEERING METHODS AND TOOLS.

Biomedical Systems Engineering students develop an in-depth understanding of the fundamental principles of Engineering by following a general engineering programme for the first year. You can then choose to specialise in Biomedical Systems Engineering, learning to apply systems methodology and concepts from other Engineering disciplines to the modelling, analysis of, and interventions for, biomedical problems.

For example, you may choose to apply the principles of electromagnetic engineering to analyse the body's own electrical and magnetic activity, making these measurements accessible to medical doctors and biologists. You may choose to apply the principles of mechanical engineering to the analysis of gait motion and creation of devices that monitor and support walking.

Students may choose to apply systems thinking perspectives to the impact of healthcare on people, processes, information and organisations, equipping them to work on high-level global priorities in healthcare.

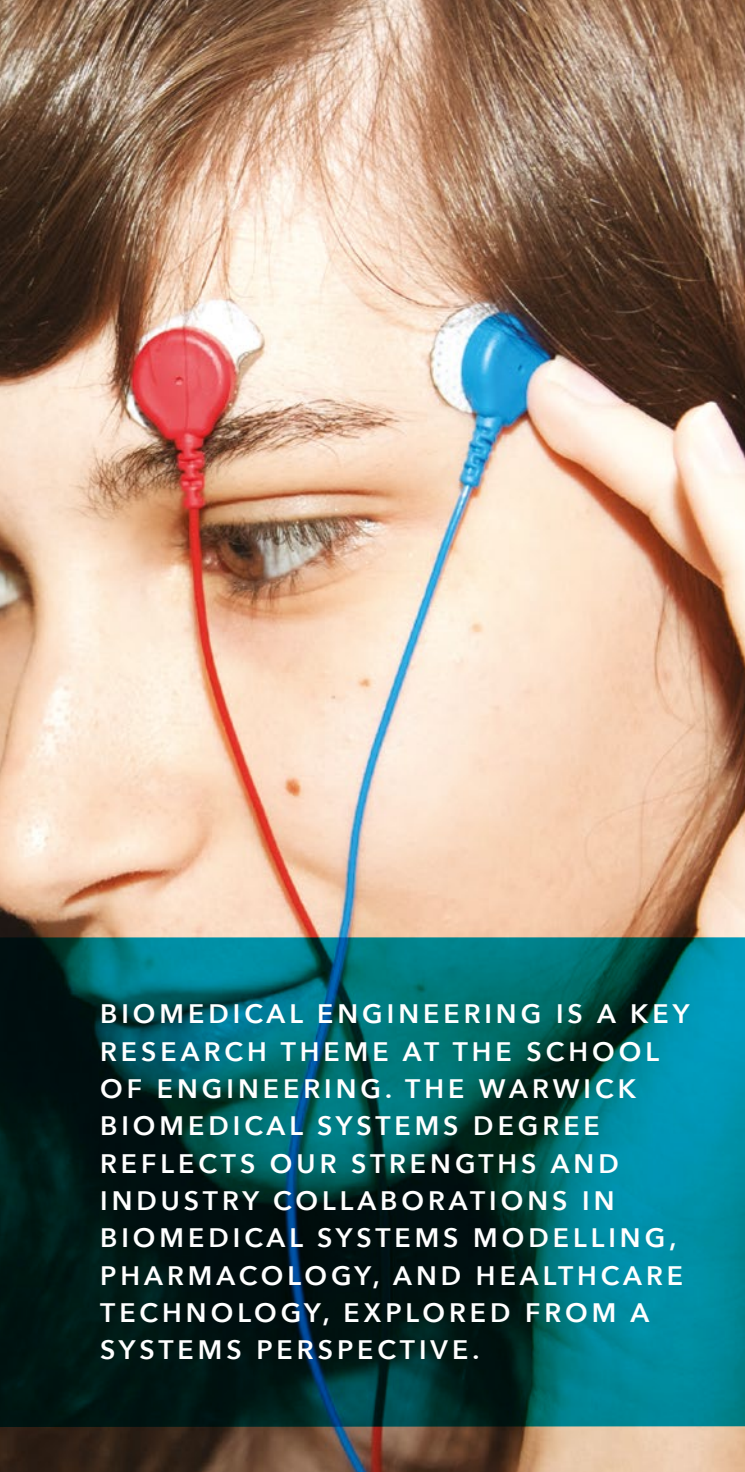
Recent projects include improving magnetic resonance imaging techniques for the diagnosis of disease; improving fluidic systems used in life sciences to study and better control infections such as MRSA; and the optimal design of foot orthoses in the treatment of conditions of the lower limb.

After graduation, Warwick students are especially well equipped to work in areas such as healthcare, pharmacology, medical device development and evaluation, and large-scale healthcare projects.

"The stream offers a wide range of topics ranging from the clinical engineering aspects within a hospital to biomechanics of the human body. The facilities at Warwick, such as the Gait lab, allow you to enhance understanding in later years as they can be used for projects. Studying at Warwick has also given me the opportunity to do a summer research internship within the department."

**Emma, 2<sup>nd</sup> year Biomedical Systems Engineering student**





BIOMEDICAL ENGINEERING IS A KEY RESEARCH THEME AT THE SCHOOL OF ENGINEERING. THE WARWICK BIOMEDICAL SYSTEMS DEGREE REFLECTS OUR STRENGTHS AND INDUSTRY COLLABORATIONS IN BIOMEDICAL SYSTEMS MODELLING, PHARMACOLOGY, AND HEALTHCARE TECHNOLOGY, EXPLORED FROM A SYSTEMS PERSPECTIVE.

## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Dynamics and Fluid Mechanics
- Engineering Mathematics and Data Analytics
- Electromechanical System Design
- Introduction to Biomedical Engineering
- Medical Device Design
- Signal Processing
- Systems and Software Engineering Principles

### Year 3

- Managing Engineering Excellence
- Systems Modelling and Control
- Biomechanics
- Biomedical Imaging
- Computational Intelligence in Biomedical Engineering
- Individual Project

### Year 4 (MEng)

- Mathematical and Computer Modelling
- Biological Systems: Analysis, Dynamics and Control
- Design for Sustainability
- Biomedical Systems Modelling
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Sensors; Finite Element Methods; Biomedical Materials, Tissue Engineering and Regenerative Medicine; Affective Computing; Biomedical Signal Processing; Advanced Robotics; Quality Systems

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.

# CIVIL ENGINEERING

**BEng Civil Engineering**  
3 years | UCAS code: H200

**MEng Civil Engineering**  
4 years | UCAS code: H202

Accrediting institutions:



## CIVIL ENGINEERING IS THE PRACTICE OF IMPROVING AND MAINTAINING THE BUILT AND NATURAL ENVIRONMENT.

Civil Engineering is everything you see that's been built around us, the kind of things we take for granted everyday but would find life hard to live without: roads and railways, schools and hospitals, or water and power supplies. Civil engineers design, create, connect and change the world, making our places work for the people that live there, and working on projects that can make a real difference to people's lives.

After developing an in-depth understanding of the fundamental principles of Engineering by following a general engineering programme for the first year, our Civil Engineering degrees allow you to develop expertise in the fundamental principles of analysis, design, sustainability and safety, to enhance the quality of life for present and future generations.

Teaching and learning at Warwick takes place in an open and engaging environment with top-class facilities. You will have the opportunity to conduct research projects in different labs and take modules related to current research in a range of civil engineering fields. Visits to construction

sites, and lectures and seminars from experts in industry provide insights into the latest civil engineering practices.

Regular individual and group projects tackle industrial challenges such as the design, building and testing of structures, the development of a robotic construction scheme, designing civil engineering works on a high speed railway or providing engineered solutions for the urban development of poor communities. You will also take part in fieldwork, which will be the opportunity for students to apply the knowledge gained during their geotechnical and environmental engineering studies.

Career destinations for civil engineers often include working for consultants and contractors across the specialisms of structures, geotechnics, tunnelling and underground space, water engineering, transportation and energy. Our graduates work as professional and highly proficient engineers in a range of exciting and rewarding careers.

**THE SCHOOL OF ENGINEERING IS A KEY PLAYER IN THE UNIVERSITY OF WARWICK'S SUSTAINABLE CITIES GLOBAL RESEARCH PRIORITY.**







"Throughout my degree I've had many site visits, events and lectures from professionals within the civil and engineering industries which have made the degree content feel exciting and relevant to the outside world. I have also been able to gain work experience in two world-class civil engineering companies and had the opportunity to work on projects at the forefront of civil engineering including HS2 and the Thames Tideway project"

**Alice**, 3<sup>rd</sup> year Civil Engineering student

## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Dynamics and Fluid Mechanics
- Engineering Mathematics and Data Analytics
- Creative and Conceptual Design
- Materials for Net Zero
- Design, Surveying and Field Practice
- Structural Analysis and Design
- Hydraulics and Water Resources

### Year 3

- Managing Engineering Excellence
- Structural Concrete Design
- Structural Steel Design
- Geology and Soil Mechanics
- Design of Earth Structures
- Individual Project

### Year 4 (MEng)

- Sustainable Ground Engineering
- Construction Project Management
- Water and Sanitation Technologies
- Design for Sustainability
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Transport Systems; Coastal and Flood Resilience; Innovative Structural Solutions; Earthquake Resilient Structures; Structural Dynamics and Vibrations; Renewable Energy; Quality Systems; Simulation of Operations.

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.

# ELECTRICAL & ELECTRONIC ENGINEERING

**BEng Electrical & Electronic Engineering**  
3 years | UCAS code: H605

**MEng Electrical & Electronic Engineering**  
4 years | UCAS code: H606

Accrediting institutions:



DEVELOP SPECIALIST KNOWLEDGE OF ELECTRICAL AND ELECTRONIC ENGINEERING DEVICES, PROCESSES AND SYSTEMS.

All Engineering students at Warwick develop an in-depth understanding of the fundamental principles of Engineering by following a general engineering programme for the first year. Specialisation starts in the second year which includes a Design Project in Electrical and Electronic Engineering.

In third and fourth year, Electrical & Electronic Engineering students focus on power electronics, electrical machines, systems modelling and the operation and control of power systems. Modules in these years reflect our key research areas including power electronics and systems, communications, embedded systems and silicon-based smart sensors. Practical work in electrical and electronic engineering begins in the first year, with the third-year individual project forming a major part of the course. Past individual project topics included a

test system for power semiconductors, an Internet-of-Things enabled air quality monitor, and (supported by industry) power electronics for delivering satellites to space. Our laboratories are equipped with software and instrumentation to support the varied teaching activities in electrical and electronic engineering.

Electrical & Electronic Engineering graduates contribute to a variety of sectors and industries such as power electronics, electrical power generation, aerospace, automotive, marine engineering and a sustainable environment.

"Warwick's initially general degree structure helped me gain an understanding of how the various engineering streams link together. It refined my passion for Electrical and Electronic Engineering and equipped me with knowledge from a range of areas right from power and analogue electronics, to digital systems and microcontroller coding."

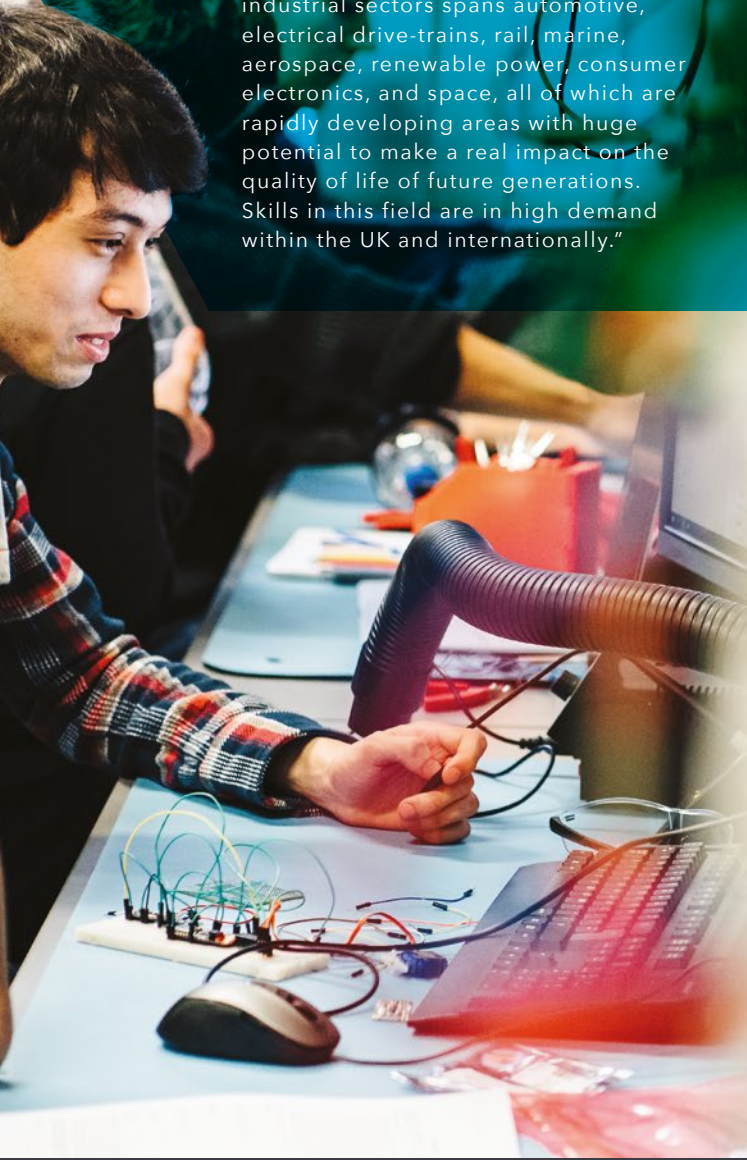
**Prabhdeep, 2<sup>nd</sup> year Electrical and Electronic Engineering student**





## PROFESSOR PHIL MAWBY:

"The Electrical and Electronic course at Warwick aims to equip you with in-depth state-of-the-art knowledge, delivered by some of the UK's leading experts in the field. The range of industrial sectors spans automotive, electrical drive-trains, rail, marine, aerospace, renewable power, consumer electronics, and space, all of which are rapidly developing areas with huge potential to make a real impact on the quality of life of future generations. Skills in this field are in high demand within the UK and internationally."



## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Semiconductor Materials and Devices
- Engineering Mathematics and Data Analytics
- Electromechanical Systems Design
- Analogue Electronic Design
- Computer Architecture and Systems
- Signal Processing
- Electrical and Electronic Design Project

### Year 3

- Managing Engineering Excellence
- Power Electronics
- Digital Systems Design
- Communications Systems
- Power Systems and Electrical Machines
- Individual Project

### Year 4 (MEng)

- Advanced Power Electronic Converters and Devices
- ASICs, MEMS and Smart Devices
- Control of Electrical Drives
- Operation and Control of Power Systems
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Sensors; Systems and Software Engineering Principles; Information Theory and Coding; Systems Modelling and Control; Optical Communication Systems; Radiowave Propagation and Wireless Communications Theory; Advanced Wireless Systems and Networks; High Performance Embedded Systems Design; Microwave Engineering and RF Circuits.

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.



# ELECTRONIC ENGINEERING

**BEng Electronic Engineering**  
3 years | UCAS code: H610

**MEng Electronic Engineering**  
4 years | UCAS code: H612

Accrediting institutions:



RECENT SCIENTIFIC AND TECHNICAL INNOVATIONS MEAN THAT ELECTRONIC ENGINEERS ARE CENTRAL TO THE DESIGN AND MANUFACTURE OF A VAST RANGE OF PRODUCTS AND SYSTEMS.

Our Electronic Engineering degrees draw on both industrial and academic experience from across disciplines to provide skills that are aligned with best commercial practices and much sought after by employers.

In the first year students will follow a multidisciplinary route into engineering, with modules covering the core areas of the subject including electronic engineering topics. Specialisation starts in the second year which includes a Design Project in Electronic Engineering. Third and fourth year modules reflect our key research areas including communications, embedded systems, power electronics, ASICs and silicon-based smart sensors.

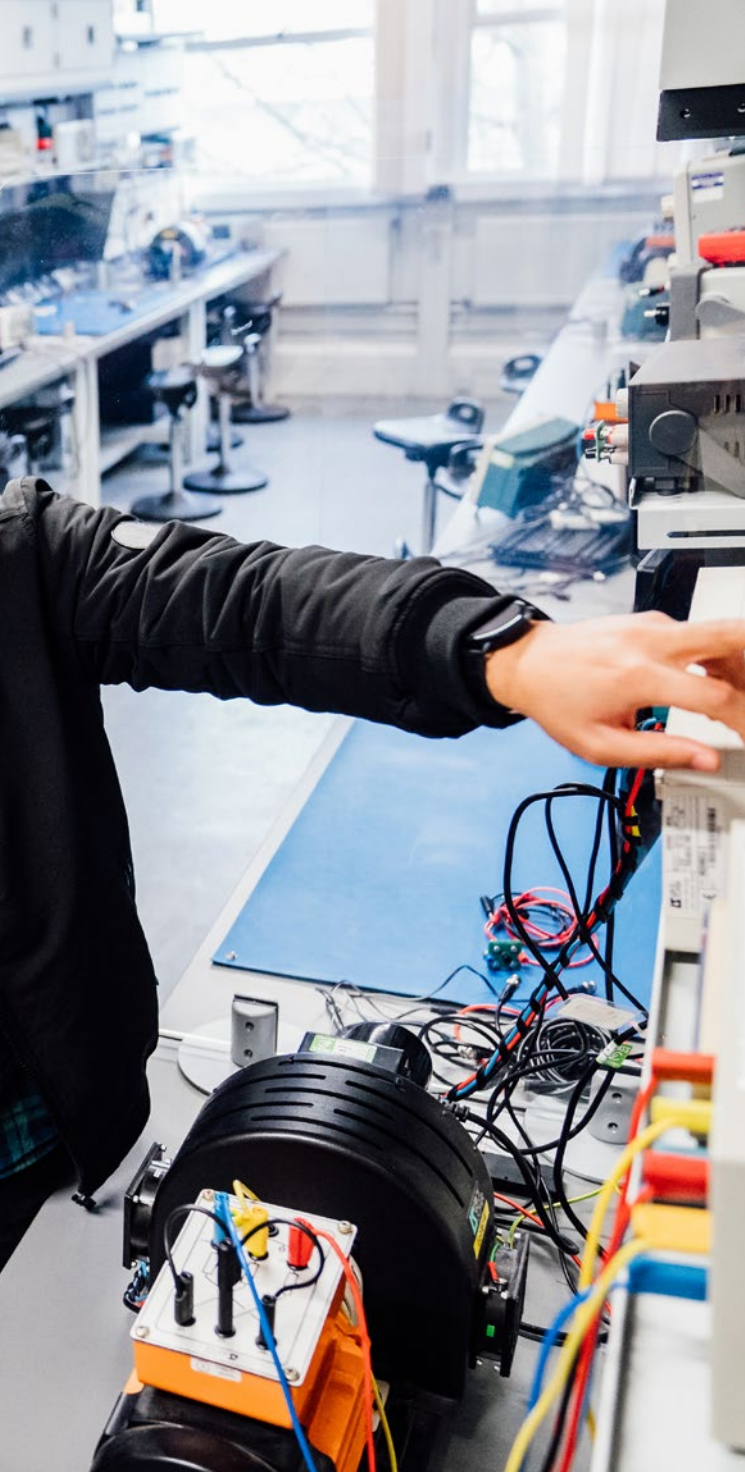
Practical work in electronic engineering begins in the first year, with the third-year individual project forming a major part of the course. Past individual project topics included machine learning, tunable antenna arrays, accelerating applications on FPGAs, and (supported by industry) an Internet-of-Things based electronic nose. Our laboratories are equipped with software and instrumentation to support the varied teaching activities in electronic engineering.

Our graduates are well placed to contribute within a variety of sectors in addition to electronic engineering, such as design and production, energy, transport, the built environment, information and communications.

"Electronic Engineering at Warwick has given me the opportunity to understand a wide range of electronics on a theoretical and practical level. I've worked with cutting edge researchers, allowing me to extend my third year project on solar cells into a summer research project which has since been published. Studying this degree has opened the door to a huge range of careers and has given me the opportunity to go into nuclear fusion research after graduation."

**Jenny, 4<sup>th</sup> year Electronic Engineering student**





## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Semiconductor Materials and Devices
- Engineering Mathematics and Data Analytics
- Electromechanical Systems Design
- Analogue Electronic Design
- Computer Architecture and Systems
- Signal Processing
- Electronic Design Project

### Year 3

- Managing Engineering Excellence
- Communications Systems
- Digital Systems Design
- Fundamentals of Modern VLSI Design
- Power Electronics
- Individual Project

### Year 4 (MEng)

- ASICs, MEMS and Smart Devices
- Advanced Power Electronic Converters and Devices
- High Performance Embedded Systems Design
- Radiowave Propagation & Wireless Communications Theory
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Sensors; Systems and Software Engineering Principles; Automation and Robotics; Optical Communication Systems; Advanced Wireless Systems and Networks; Information Theory and Coding; Advanced Robotics; Microwave Engineering and RF Circuits

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.

# ENGINEERING (GENERAL)

**BEng Engineering**  
3 years | UCAS code: H100

**MEng Engineering**  
4 years | UCAS code: H102

Accrediting institutions:



GAIN AN IN-DEPTH UNDERSTANDING OF ENGINEERING PRINCIPLES ACROSS A WIDE RANGE OF DISCIPLINES.

This is an ideal route into Engineering if you wish to sample all our disciplines and want a sustained broad learning experience. As with all our degrees, you will decide whether to stay on this general pathway or switch to another engineering course from second year onwards. Those choosing to stay on the more general pathway will be able to choose options for the different engineering disciplines and will develop an in-depth understanding of the fundamental principles of Engineering by learning from a wide range of areas.

Many engineered solutions involve multidisciplinary teams. General Engineers can see synergy across these disciplines which enables them to solve high-level problems. The Warwick course will allow you to develop sought-after skills including a multidisciplinary approach to problem solving, the ability to manage projects

and communicate ideas, and the capacity to lead, research, design, innovate and develop products and systems.

Interdisciplinary projects enable you to tackle challenges that could range from creating search and rescue robots, designing carbon-free homes, optimising mechanical biological waste treatment or building a nano-satellite.

After graduation, Warwick students are especially equipped to work in multi-disciplinary organisations in functional teams that create solutions incorporating (for example) mechanical and electrical components, or on largescale civil projects where interdisciplinary thinking is required to understand (for example) the impact of the London Olympics on public transport.







"Warwick is one of the few universities where students can choose a general engineering degree, and I think that this has been a huge benefit for me. It has allowed me to try a whole range of interesting modules, from biomedical engineering to computer architecture, and this in turn means that I am not restricted to just one career path in my future."

**Molly, 2<sup>nd</sup> year Engineering (General) student**

## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Dynamics and Fluid Mechanics
- Electromechanical System Design
- Engineering Mathematics and Data Analytics
- Signal Processing
- Mechanical Engineering Design
- Systems and Software Engineering Principles

### Year 3

- Managing Engineering Excellence
- Systems Modelling and Control
- Power Systems and Electrical Machines  
OR Engineering Fluid Mechanics
- Advanced Systems and Software Engineering  
OR Advanced Mechanical Engineering Design
- Individual Project

### Year 4 (MEng)

- Design for Sustainability
- Computational Fluid Dynamics
- Mathematical and Computer Modelling
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Structural Analysis and Design; Manufacturing Management; Biomedical Systems Modelling; Batteries and Fuel Cells; Computational Synthetic and Systems Biology; Quality Systems; Human Factors of Future Mobility; Construction Management; Vehicle Propulsion.

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.

# ENGINEERING BUSINESS MANAGEMENT

## BEng Engineering Business Management

3 years | UCAS code: HN12

THIS COURSE WILL APPEAL TO YOU IF YOU WANT TO STUDY ENGINEERING, BUT SEEK AN ALTERNATIVE TO BECOMING A CHARTERED ENGINEER.

Engineering companies need to provide not only superior products, but also superior services in order to be sustainable in the long-term. There is a real demand for graduates with technical knowledge and strategic business management and entrepreneurial skills. The Engineering Business Management degree is delivered in partnership with Warwick Manufacturing Group (WMG), renowned worldwide for its innovative links between academia and industry. By mastering this you'll provide the key interface between roles as diverse as design, manufacturing, marketing, contract management and supply chain management.

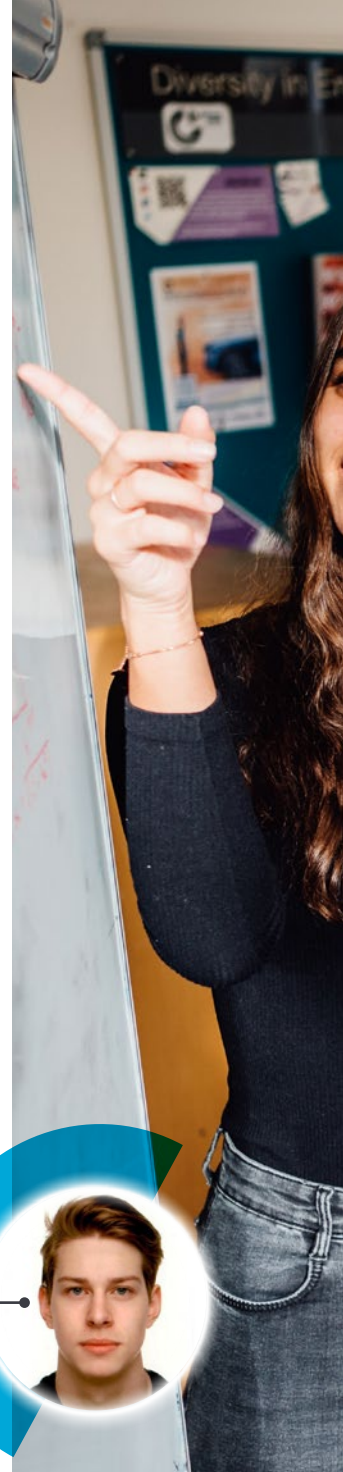
In the same way as our other engineering undergraduates, those studying Engineering Business Management spend their first year studying fundamental engineering concepts. The course then specialises in engineering business related subjects, equipping students with the business and management skills they need to operate in a global

economy. Teaching draws on the expertise of the School of Engineering, which delivers the highest standards of technical expertise; WMG (Warwick Manufacturing Group), which offers innovative links between academia and industry; and Warwick Business School (WBS), which is internationally recognised for excellence in business management.

Reflecting the realities of the multidisciplinary business environment, our curriculum integrates both the technical and business context you will need to be successful in a wide range of careers. You might aspire to join a company that provides engineering, maintenance or logistic services, for example, or have your sights set on consultancy roles. Engineering Business Management students develop their engineering expertise alongside knowledge of the full range of business functions and are equipped to find their place in an increasingly competitive global marketplace.

"With our world becoming progressively more connected, engineering is taking on a more prominent and connected role. EBM teaches you how to effectively bridge those gaps and provides you with the engineering skills and business know-how to excel in the changing work environment. With both the prestige of Warwick Business School and the cutting-edge industry-leading facilities of the Engineering department you have unprecedented support, and study under the best and brightest from both departments."

**Eric, 1<sup>st</sup> year Engineering Business Management student**





## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Engineering Mathematics and Data Analytics
- Technical Operations Management
- Manufacturing Design

### Year 3

- Managing Engineering Excellence
- Engineering Supply Chain Management
- Lean Operations and Quality Improvement
- Engineering Business Management Group Project
- Individual Project

## EXAMPLES OF OPTIONAL MODULES

International Business Strategy; Life Cycle Engineering of Manufacturing Systems; Design for Vehicle Safety; Marketing in Practice; Project Management

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.





# MANUFACTURING & MECHANICAL ENGINEERING

**BEng Manufacturing & Mechanical Engineering**  
3 years | UCAS code: HH73

**MEng Manufacturing & Mechanical Engineering**  
4 years | UCAS code: HH37

Accrediting institutions:



DEVELOP A DEEP UNDERSTANDING OF  
MANUFACTURING PROCESSES AND MECHANICAL  
DESIGN PRINCIPLES.

The Fourth Industrial Revolution, a cyber physical age, will be realised over the next 20 years. This course will equip you with the skills and knowledge to be at the forefront of these exciting developments and is delivered in partnership with WMG (Warwick Manufacturing Group), renowned worldwide for its innovative links between academia and industry.

A sound underpinning of the basics in science and management is developed in the first year. After this you can specialise in Manufacturing and Mechanical Engineering, where you will learn and develop state-of-the-art techniques and methodologies that graduates find directly applicable in industry.

You will master modern technologies and skills such as robotics, lifecycle analysis, computer-aided design and simulation. We will offer you a rich curriculum and resources to achieve this and will give you a significant understanding of management techniques

and skills alongside those technical subjects to give you the confidence to innovate and lead in a globally sustainable economy.

In your third year you will be able to apply your skills to an individual project such as rapid prototyping, robot design or processing of novel materials. Those who choose the MEng degree will complete a group project in the fourth year, for example designing and building a human-powered submarine or a robot to rescue victims from a collapsed building.

After graduation, you will typically find employment within advanced industries as diverse as aerospace, automotive, consumer goods, electronics and pharmaceuticals, and in general any industrial sector, as electro-mechanical systems are everywhere.





WMG'S CENTRE FOR IMAGING, METROLOGY AND ADDITIVE TECHNOLOGIES PROVIDES A HUB FOR INNOVATION AND RESEARCH THAT BRINGS TOGETHER WORLD LEADING TECHNOLOGIES FOR THE ENHANCEMENT AND UNDERSTANDING OF PRODUCT AND PROCESS PERFORMANCE.

"I chose Manufacturing and Mechanical Engineering because it covers a large range of technical knowledge and considers how engineers ensure quality, reliable and efficient manufacturing processes are implemented and maintained. I've enjoyed applying my knowledge directly to practical projects - building a flat pack go-kart was particularly fun! The flexibility this course offers has led me to find a placement at a pharmaceutical company and I look forward to even more opportunities when I graduate."

**Floriane, 3<sup>rd</sup> year Manufacturing and Mechanical Engineering student**

## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Dynamics and Fluid Mechanics
- Engineering Mathematics and Data Analytics
- Electromechanical System Design
- Manufacturing Engineering Design
- CAD/CAM and Simulation
- Industrial Engineering
- Manufacturing Management

### Year 3

- Managing Engineering Excellence
- Automation and Robotics
- Design for Manufacture
- Lean Operations and Quality Improvement
- Life Cycle Engineering of Manufacturing Systems
- Individual Project

### Year 4 (MEng)

- Innovative Process Development
- Quality Systems
- Design for Sustainability
- Supply Chain Management
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Motor Vehicle Technology; Starting a Business; Engineering Business Management Group Project; Supply Chain Management; Simulation of Operations; Advanced Robotics; Vehicle Propulsion; Automotive Materials and Processes

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.

# MECHANICAL ENGINEERING

**BEng Mechanical Engineering**  
3 years | UCAS code: H300

**MEng Mechanical Engineering**  
4 years | UCAS code: H302

Accrediting institutions:



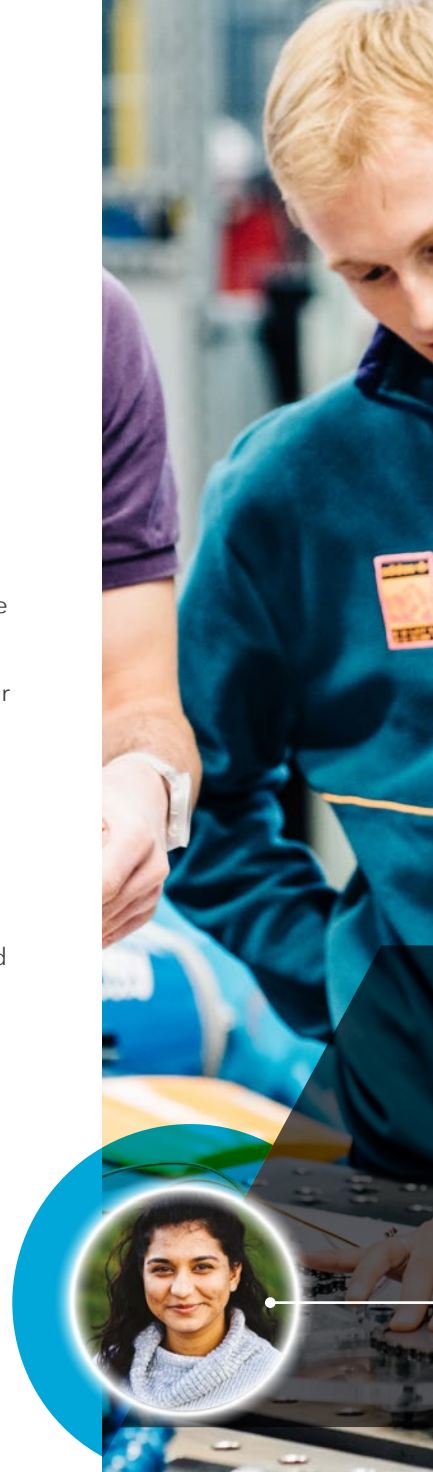
## DEVELOP THE EXPERTISE TO DESIGN AND CREATE SUSTAINABLE, CUTTING-EDGE TECHNOLOGIES.

Mechanical systems, mechanisms and machines lie at the heart of our traditional engineering industries, and the skills and techniques associated with them continue to be essential. In recent years these skills have extended into areas such as precision engineering, nanotechnology and mechatronics, as mechanical engineers have broadened their abilities and embraced technologies from other disciplines to solve difficult problems.

After developing an in-depth understanding of the fundamental principles of engineering, those who choose to specialise in Mechanical Engineering augment their knowledge with deeper understanding of mechanically-based systems. We provide opportunities to learn from world-leading researchers at the School of Engineering and WMG (Warwick Manufacturing Group) in areas such as precision mechanics, fluid dynamics, and sustainable thermal energy technology, as well as complementary areas in other fields of engineering.

You'll have the chance to apply your new skills through projects at various points in the degree. Current projects include reverse engineering a single-cylinder internal combustion engine and building a fighting robot. Third year students undertake a major individual project to work on a specific problem in depth. For those who choose the MEng degree, the fourth-year project is much more collaborative and is a realistic simulation of working in a multidisciplinary team in industry. In project work you will develop highly sought-after skills in project management and communication, alongside the ability to research, design and develop mechanical engineering products and systems.

After graduation, Warwick's Mechanical Engineering students are well equipped to work in modern, multidisciplinary organisations, and are enabled to solve modern technological problems.







"This course provides a wide range of opportunities to experience both practical and theoretical knowledge across the mechanical field, from beam balancing laboratories to finite element analysis. I found that commencing the degree with general engineering (first year) has provided a strong foundation which is helpful when dealing with group projects. Additionally, the option to complete an intercalated year allowed me to experience the industry and the expectations of an incoming engineer."

**Karishma**, 4<sup>th</sup> year Mechanical Engineering with Intercalated Year student

## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Dynamics and Fluid Mechanics
- Engineering Mathematics and Data Analytics
- Electromechanical System Design
- Materials Technology for Sustainable Energy
- Mechanical Engineering Design
- Planar Structures and Mechanisms
- Applied Thermodynamics

### Year 3

- Managing Engineering Excellence
- Dynamics and Control of Vibrating Systems
- Finite Element Methods
- Engineering Fluid Mechanics
- Advanced Mechanical Engineering Design
- Individual Project

### Year 4 (MEng)

- Renewable Energy
- Computational Fluid Dynamics
- Dynamics of Mechanical Systems
- Heat Transfer Theory and Design
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Manufacturing Management; Measurement and Instrumentation; Lean Operations and Quality Improvement; Precision Engineering and Microsystems; Advanced Robotics; Biomedical Materials, Tissue Engineering and Regenerative Medicine; Quality Systems; Design for Sustainability, Reaction Engineering Principles.

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.

# SYSTEMS ENGINEERING

**BEng Systems Engineering**  
3 years | UCAS code: HH35

**MEng Systems Engineering**  
4 years | UCAS code: HH31

Accrediting institutions:



## STUDY PRINCIPLES ACROSS ENGINEERING DISCIPLINES AND INTERACTIONS BETWEEN SYSTEMS.

Systems Engineering is an interdisciplinary approach that enables the realisation of complex systems. Many complex engineering products (such as aerospace and automotive) involve a high level of integration and interaction across the mechanical, electronic and software domains. Systems Engineers analyse and design the behaviour of these systems including active and intelligent software, which allows systems to detect and respond to changes.

A Systems Engineer needs to understand the broader context of a system including people, processes, and information flow. The Systems thinking approach that will be gained from this course equips engineers to work on holistic problems where there are conflicting needs and complex interactions.

After studying general engineering for the first year, those specialising in Systems Engineering will develop the tools required

to model problems across different areas, synthesising their knowledge and making connections among different fields. Projects carried out by students in recent years include the creation of a gesture detection systems which recognises British sign language, and developing a systems model of iron storage in brain disease.

As well as giving you the skills to communicate effectively and pursue a flexible career, a degree in Systems Engineering will allow you to work in an environment where you can apply data science and software engineering techniques. Warwick students are especially equipped to work in multidisciplinary organisations in functional teams that create systems incorporating mechanical and electrical components, or on large-scale projects where systems thinking is required to understand (for example) the impact of the London Olympics on public transport.

"The Systems Engineering course at Warwick has a very good range of exciting, but directly applicable modules that are useful for any future Engineering career. A module I find particularly interesting is Systems and Software Engineering Principles which stresses the importance of systems thinking and applying it when designing, managing or analysing any system using practical and mathematical tools."

**Bianca, 2<sup>nd</sup> year Systems Engineering student**



**DR ALEX MOUZAKITIS,**  
Head of Vehicle Engineering Research,  
Jaguar Land Rover Ltd:

"This is a well structured course that covers systems and software engineering content by taking an integrated approach ranging from maths, engineering design, dynamics, intelligent systems, biomedical, control, systems, simulation and software engineering. This course is closing a gap providing the right knowledge and skills to future engineers. The course is creating competent engineers able to address future challenges within engineering environments that demand multidisciplinary skills to deliver innovations and products that consumers want."

## CORE MODULES

### Year 1

- General Engineering core programme (see pages 8-9)

### Year 2

- Dynamics and Fluid Mechanics
- Engineering Mathematics and Data Analytics
- Electromechanical System Design
- Analogue Electronic Design
- Computer Architecture and Systems
- Signal Processing
- Systems and Software Engineering Principles

### Year 3

- Managing Engineering Excellence
- Systems Modelling and Control
- Automation and Robotics
- Machine Learning and Intelligent Systems
- Advanced Systems and Software Engineering
- Individual Project

### Year 4 (MEng)

- Mathematical and Computer Modelling
- Design for Sustainability
- Advanced Robotics
- Advanced Control Systems
- Group Project

## EXAMPLES OF OPTIONAL MODULES

Motor Vehicle Technology; Sensors; Dynamics and Control of Vibrating Systems; Biomedical Systems Modelling; Automobile Systems, Dynamics and Control; Affective Computing; Computational Synthetic and Systems Biology; Quality Systems; Simulation of Operations; Supply Chain Management; Foundations of Data Analytics.

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.





# COMPUTER SYSTEMS ENGINEERING (JOINT DEGREE)

**BEng Computer Systems Engineering**  
3 years | UCAS code: G406

**MEng Computer Systems Engineering**  
4 years | UCAS code: G408



## Entry Requirements

Our entry requirements for 2024/25 entry are currently being reviewed. Please refer to our website for the most up to date information: [warwick.ac.uk/study/undergraduate/courses/compsyseng](http://warwick.ac.uk/study/undergraduate/courses/compsyseng)

## Other Qualifications

We encourage applications from students with a wide range of qualifications. Please see the University website for more details: [warwick.ac.uk/study](http://warwick.ac.uk/study)

Computer Systems Engineering (CSE) is a fully-integrated degree taught jointly with the Department of Computer Science. It combines the study of computer science and electronic engineering, focusing on the design of computer systems and their real-time applications.

You will specialise from the first year as this course does not share the common first year with our other degrees. With teaching from research leaders in the Department of Computer Science and the School of Engineering, you will explore digital electronics, low-power systems, communications, control and real-time operation.

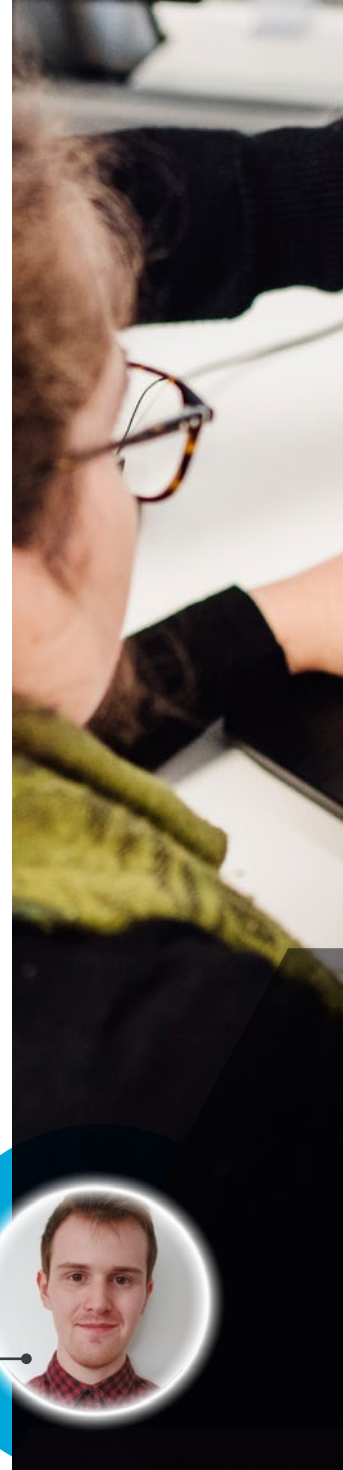
The curriculum places particular emphasis on pervasive technologies, including wireless networks, mobile devices and sensors, robotics and wearable technology.

You will learn to apply state-of-the-art computer science methods for validation and design, and code optimisation; and to use high-performance computing techniques to design efficient and robust embedded systems. You will develop skills in communication, documentation, reporting, teamwork, and the ability to effectively articulate technical concepts.

CSE graduates have a skill set that is applicable across a range of careers. Recent graduates have landed prestigious jobs at the very best computer design companies and current students have undertaken internships at companies such as ARM, Intel and Airbus.

"The multidisciplinary nature of CSE makes it an incredibly special course in an expanding digital world of smart and IoT devices. There is an increasing demand for computer engineers with a skillset that the programme provides."

**Steven, 3<sup>rd</sup> year Computer Systems Engineering student**





**COMPUTER SYSTEMS ENGINEERING IS OUR FLAGSHIP JOINT DEGREE PROGRAMME WITH COMPUTER SCIENCE, OFFERING STUDENTS ACCESS TO THE WORLD CLASS FACILITIES AND ACADEMICS IN BOTH DEPARTMENTS. THE CURRICULUM PREPARES YOU FOR A CAREER AT THE LEADING EDGE OF TECHNOLOGY.**

## CORE MODULES

### Year 1

- Computer Organisation and Architecture
- Design of Information Structures
- Electrical and Electronic Circuits
- Engineering Mathematics
- Professional Skills
- Programming for Computer Scientists
- Systems Modelling, Simulation and Computation

### Year 2

- Advanced Computer Architecture
- Analogue Electronic Design
- Digital Systems Design
- Engineering Mathematics and Data Analytics
- Operating Systems and Computer Networks
- Software Engineering

### Year 3

- High Performance Embedded Systems Design
- Project Management for Computer Scientists (MEng only)
- Individual Project

### Year 4 (MEng Only)

- Group Project

## EXAMPLES OF OPTIONAL MODULES

Mathematics for Computer Scientists I; Functional Programming; Computer Security; Digital Communications and Signal Processing; Artificial Intelligence; Web Development Technologies.

## FURTHER INFORMATION

[warwick.ac.uk/engineering](http://warwick.ac.uk/engineering)

We are constantly evolving our courses to keep up with developments in engineering and requirements from industry, so it is important you check our website for the most up-to-date information on module availability.

# HOW WILL I LEARN?

BY JOINING OUR SCHOOL OF ENGINEERING YOU'LL BECOME PART OF OUR APPROACHABLE AND INCLUSIVE COMMUNITY AND BE SUPPORTED BY STAFF AND STUDENTS ALIKE.

The academics who teach you work at the forefront of their subjects and are making internationally significant advances, so you'll encounter the latest thinking and most up-to-date knowledge while you study at Warwick.

## TEACHING

We take an enhanced learning approach to enable practical, experimental, reflective, flipped, interactive and peer-to-peer learning. You will experience face-to-face and online teaching and learning activities such as lectures, interactive sessions (seminars, workshops), design and make, practical and experimental (laboratory) activities.

The mix of activities and mode of delivery are selected according to the content of individual modules, and normally, multiple weekly face-to-face sessions are provided.

## PROFESSIONAL SKILLS

As well as deep subject knowledge, our courses help you develop key skills in independent and critical thinking, presentation, communication, research, leadership, teamwork and organisation. Our courses are designed to progressively build your knowledge, skills and confidence to ensure that you're ready for life after university.

93%

OF OUR COMPLETE REF2021 SUBMISSION WAS RATED AS 'WORLD-LEADING' OR 'INTERNATIONALLY EXCELLENT'

(Research Excellence Framework, 2021)





### 3<sup>RD</sup> & 4<sup>TH</sup> YEAR PROJECTS

In Year 3, students develop their research skills through an individual project related to their degree, specialising in one particular area. This may be linked to our research activities, be in conjunction with an external company, or support a fourth year project. For those who study for a MEng degree, the fourth year large group project is worth 25% of the year and simulates the multidisciplinary working practices you will experience in your career.



### TUTORS

Lecturers provide support and feedback hours for additional help with materials they've covered. Students are allocated a personal tutor to whom they can turn for advice regarding academic or personal matters, and can signpost students to other appropriate sources of personal support and guidance within the University.

The School also has a Senior Tutor who promotes the academic welfare of students and to whom students can turn for support regarding difficulties in their studies.

### ASSESSMENT

Your mastery of the course material will be assessed in diverse ways, and you can expect to mostly take (online or face-to-face) examinations and complete coursework assignments. Projects are assessed by a variety of methods, including oral presentations, written reports and posters.

### INDEPENDENT STUDY

Our building is equipped with all the facilities, tools, and work and social spaces you need to be successful in your studies. Computer laboratories loaded with specialist software are open 24/7 and you can also download much of this software on your own devices, helping you undertake work at any time or in any place that suits you.

### SOCIAL LIFE

You'll have opportunities throughout your degree to work on tasks or projects with other students, helping you to forge meaningful friendships that can prove to be a great source of academic and personal support throughout your time at university, and often go on to become a valuable part of your professional network after you graduate.

# STUDENT COMMUNITY

**Our Campus** is home to students and staff from many different backgrounds and countries. This inclusive and cosmopolitan atmosphere gives Warwick its vibrancy and characteristic 'buzz.' We value your individuality and provide an environment where you can be yourself and form life-long friendships.

**The Students' Union (SU)** supports over 300 student societies and sports clubs so you'll have many opportunities to meet people, learn valuable skills and try new things. The SU runs a packed programme of events including gigs, karaoke, open-mic nights and pub quizzes. [warwicksu.com](http://warwicksu.com)

**Warwick Arts Centre** is one of the largest multi-artform venues in the UK and hosts many arts and cultural activities. [warwickartscentre.co.uk](http://warwickartscentre.co.uk)

**Student Ambassadors Scheme** enables students to partake in a variety of student recruitment and outreach activities. Student Ambassadors receive full training and develop valuable transferable skills in the course of their duties. It's also a great way to make new friends! Students are encouraged to apply for Student Ambassador roles in term one.



## ENGINEERING SOCIETY

Warwick Engineering Society is a student-run community, providing a platform for all engineers to expand their knowledge, engage in social activities, and broaden their horizons beyond their degree. Our mission emphasises the importance of achieving a balance between academics and social interaction. From thrilling go-karting events to stimulating bi-weekly industry talks featuring speakers from a variety of companies such as AlphaTauri Formula 1, Bentley, and IBM, we strive to provide an enriching experience.



Our inclusive and diverse community fosters an environment that accommodates individuals from all backgrounds, by running events such as:

- Two annual conferences
- Site visits and student projects
- Careers talks and networking opportunities
- Regular and diverse socials for all
- Academic sessions and workshops
- Welfare initiatives, such as 'Let's STEM the Stress!'



- **WINNER**  
Best University Society,  
National Undergraduate Employability Awards 2019
- **WINNER**  
Impact on Campus Award,  
Bright Network Society of the Year Awards 2019
- **SHORTLISTED**  
Innovation Award,  
Bright Network Society of the Year Awards 2020

[warwickengineers.co.uk](http://warwickengineers.co.uk)

 @warwickengsoc  warwick-engineering-society

## WARWICK BORING

At the cutting edge of innovation, the Warwick Boring Team placed 5th in Elon Musk's Not-a-Boring Competition 2023 in Austin, Texas! The team is made up of 50+ ambitious students who aim to revolutionise the tunnelling industry by creating their cost-effective, modular, and easy to assembly tunnel boring machine.

- **SHORTLISTED**

Top 4 of Elon Musk's Not-a-Boring Competition 2021

- **FINALISTS**

E&T Innovation Awards 2022

NCE Tunnelling Festival 2022



warwickboringteam.com

f warwickboring    @warwickboring

## ENGINEERS WITHOUT BORDERS

Engineers Without Borders Warwick is affiliated to the national charity Engineers Without Borders UK, a movement that inspires, enables and influences global responsibility through engineering. The society provides opportunities for students to:

- Develop practical skills through creative and sustainable-minded technical projects
- Volunteer in local schools and events, inspiring the next generation of engineers
- Learn about international development through talks and networking events
- Enjoy regular socials with a friendly group of engineers and non-engineers



f ewbwarwick    @ewbwarwick

## WARWICK RACING

Warwick Racing are a student run racing team who design and build single seat race cars for participation at international competitions. The project is open to all years to get involved with the opportunity to get hands-on engineering experience. The team is made of several different sub teams: Chassis, Vehicle Dynamics, Powertrain, Electronics, Manufacture and Testing as well as a business side which deals with Marketing, Finance, Sponsorship, PR and Outreach & Events. The team are currently manufacturing both an Electric and AI car.

warwickracing.org



## WARWICK WOMEN IN ENGINEERING AND SCIENCE

Warwick Women in Engineering and Science (WWES) is focused on promoting and creating a diverse and inclusive STEM industry. WWES is affiliated with the UK charity WES and offers support, advice, inspiration and professional development for minorities in Engineering and STEM. Students can get involved through volunteering, outreach, conference, collaborations with other societies and great socials. There is bound to be something for you!



- **WINNER**

Bright Network's Diversity and Inclusion Award 2019

- **SHORTLISTED**

Bright Network's Women's Society Award 2022

Engineering Talent Award 2020

@warwick\_wes



## WARWICK MOTO

Warwick Moto is a student run racing team who aim to design and build an electric motorcycle to compete against other students and professional teams from across the world in multiple national and international race events every year. The project provides opportunities to develop skills on both the engineering and business sides, and the team is open to all years and made of several sub-teams which tackle different domains of the motorcycle such as aerodynamics and powertrain. The team has an ultimate goal to race at the Isle of Man TT on the return of the TT Zero class.



f warwickmotoracing



# INTERCALATED DEGREES

STUDENTS CAN CHOOSE TO SPEND A YEAR IN INDUSTRY, RESEARCH OR STUDY ABROAD AS PART OF THEIR DEGREE.

Intercalated years are typically taken between years two and three, or between years three and four for MEng, and add a year to your degree duration.

A year in industry enables students to apply, build and reflect on their key technical and professional skills in a paid work environment for up to 12 months (see pages 37-38). A year in research is an alternative option for those who may want to develop a career in academia or a particular field of research.

Those choosing to study abroad will have an opportunity live and study in a different cultural setting, therefore enhancing the learning experience.

Please note: study abroad options are offered subject to availability.



# PLACEMENTS AND INTERNSHIPS

THE SCHOOL OF ENGINEERING HAS A DEDICATED PLACEMENT AND INTERNSHIP OFFICER WHO ACTIVELY ENCOURAGES STUDENTS TO GAIN RELEVANT WORK EXPERIENCE THROUGH A SUMMER OR YEAR-LONG PLACEMENT.

The School's Placement and Internship Officer provides guidance to help prepare you for the rigorous recruitment and selection procedures used by employers in the UK and overseas. Students with relevant work experience tend to fare much better in the graduate recruitment process as they can demonstrate greater skills, competencies, strengths and experiences.

## Ciara, 3<sup>rd</sup> year MEng Civil Engineering student with placement at Graham Construction

"As a Placement Engineer I spent the majority of my placement working on Carpenters Land Bridge, a 66m long steel footbridge Graham constructed in the Olympic Park in Stratford, London. My role was to assist with the everyday running of site including ordering materials, co-ordinating deliveries and inducting new operatives. Using survey equipment, I set out the project's concrete structures and guided the placement of the bridge sections so they can be welded together in the correct alignment. The highlight was watching the installation of Carpenters Land Bridge over Network Rail tracks, DLR lines and Carpenters Road on Christmas Day.

My university modules provided me with the theory I would see utilised on site

throughout my placement. In particular, I was able to relate the slump and geological tests that were performed on site to my materials and geotechnical modules.

I wouldn't have gained invaluable site experience if I hadn't of taken my placement. The placement allowed me to develop multiple transferable skills that I will be able to utilise no matter what industry I enter after university. It also enabled me to further enhance my industry awareness of the construction sector. In fact, my placement confirmed to me that I want to enter contracting civil engineering after I graduate. I have learnt more about the skills required by the industry, what tasks I will be expected to complete and how a working day is structured."



### Josh, 4<sup>th</sup> year MEng Systems Engineering student with placement at BAE Systems

"I spent the first six months in a team as a systems engineer working on all aspects of the design of new systems. My activities included Technical Capability studies to assess the suitability of different modelling approaches, evaluating potential suppliers based on their capability, writing system requirements and carrying out model-based systems engineering using Enterprise Architect to increase the maturity of the design.

The second six months were spent working in business development and strategy on a wide range of different projects. My favourite was developing a simulation model of submarine availability, which required me to work with stakeholders from across the business, supply chain and our customers.

I had an amazing time on my placement! My team were all very supportive and incredibly knowledgeable, I learned so much about a

really wide range of topics working with them and I felt a valued part of the team.

Warwick supported me with interview practise prior to the placement and kept in regular contact to ensure I was settling in and making the most of the opportunity. Studying Systems Engineering at Warwick prior to my placement also taught me how to be a problem solver, flexible and work in teams which meant I could quickly get stuck into my new surroundings and start actively contributing to the project, despite having no prior knowledge of the topic area.

The placement definitely made me more confident, well-rounded and more of a team player which helped in final year where I had a lot of group work. The experience has also helped securing a job, I had an offer to return to BAE but have also been offered a job at Deloitte which is more focused on my area of interest, mathematical modelling."



### Oluseyi, 4<sup>th</sup> year MEng Manufacturing and Mechanical Engineering student with placement at Xylem

"I spent my placement year working as a Manufacturing Engineer Intern at Xylem. My primary objective was to help with the introduction and implementation of Lean manufacturing tools and techniques. However in practice I got involved in so much more. I worked with Xylem Watermark (the social corporate responsibility arm of Xylem) to educate children on the worldwide water crisis, I worked with the HSE team to develop a new system for managing the outstanding actions and I also got my hands dirty on the shop floor conducting on site 5S events. My highlight was definitely getting sent to the south of France (all expenses paid!) to go and work with a customer in resolving an issue that was brought to our attention.

The most significant thing about the Engineering course was the general structure which meant that, although my role was specific to the Lean methodology, my understanding of engineering design, fluid dynamics, and even presentation skills all helped me on my placement.

I have currently secured a graduate job at Cisco as a consulting Engineer. Without a shadow of a doubt there is no way I would have secured this role without my year in industry. Not only in terms of having the experience of working full time in such an environment, but even during every interview stage, the experience I gained gave me an upper hand which was critical to my success in securing the role."





# CAREERS AND EMPLOYABILITY

CHOOSING WARWICK WILL GIVE YOU THE OPPORTUNITY TO MAXIMISE YOUR CAREER PROSPECTS.

Our degrees are attractive to employers both in the UK and internationally because of the breadth of knowledge and skills our 'well-rounded' graduates gain. We have a strong University Student Careers and Skills Service, who offer valuable graduate careers support.



**5<sup>TH</sup> MOST TARGETED BY UK'S TOP 100 GRADUATE EMPLOYERS**

(THE GRADUATE MARKET IN 2023, HIGH FLIERS RESEARCH LTD)

**100% WARWICK'S GRADUATE PROSPECTS SCORE FOR GENERAL ENGINEERING\***

IN THE COMPLETE UNIVERSITY GUIDE 2024.

\* N.B: The "Graduate Prospects - Outcomes" score is a measure of the success in employability or further study of graduates completing their first degree. As the School of Engineering is a unified engineering department, we are only listed under 'General Engineering' in this league table ranking. This ranking includes data from all of our degree streams.

# PARENTS AND SUPPORTERS

## SUPPORTING YOUR CHILD AT WARWICK

We understand that the wellbeing of your child is extremely important to any parent, and coming to university can be a big adjustment, both for your child and for you. At the University of Warwick, we fully understand this and are committed to providing a supportive, positive, and safe environment for all.

Sometimes students can encounter personal difficulties, but the University has a number of specialist support services to aid students through challenging times and enable them to fulfil their potential.

## WELLBEING

Wellbeing Support Services help your child develop the personal resources and skills to navigate student life. We provide a range of support including both practical and emotional support for students' wellbeing and helping them access other services from self-help resources to email counselling and therapy groups.

For 24/7 support, students can use their student emails to access 'Togetherall' which is an online platform offering digital mental health services from the help of trained clinicians and a community of peers. Whether they feel stressed, lonely, or just not themselves, this platform provides your children with a safe space to share their experiences and thoughts anonymously.



## ACCOMMODATION AND LIVING SUPPORT

When your child lives on campus during their first year, our Residential Community Team will live alongside them the whole way. They will be there to chat to or help them adjust to living away from home and getting the balance right between social and academic life. Our team is there to support them as they manage the "everyday life" stuff. We are happy to help with a range of different concerns, such as accessing wellbeing support, flatmate conflicts, general stress, anxiety, and homesickness to name a few.

## SAFETY

The Community Safety department is a team of individuals dedicated to protecting the safety and security of everyone who lives, works and studies at the University. They have an on-Campus presence 24 hours a day, 365 days a year to provide pastoral support to everyone within our community. They also offer useful advice on how to stay safe both on and off campus. You can rest assured that your child will be safe with us at the University of Warwick.



## WHAT YOU CAN DO TO SUPPORT YOUR CHILD AT UNIVERSITY

Especially when students start at University, the adjustment process can take time. Experience shows us that one of the biggest concerns for new undergraduate students is making friends. A degree of anxiety is a normal part of life, particularly when faced with new situations.

Whilst they may feel like they are in the minority, we can assure you, they are not. Most students will adjust within a number of weeks, but if your child is still struggling, please encourage them not to come home as this may be worse for them. Instead encourage them to find support at Warwick, which they can get through our Wellbeing Support Services team and on our online Wellbeing Portal. Remind them to also take care of themselves as having a healthy sleep, diet and exercise routine is really key to positive for an all-round positive student experience.

## ACADEMIC SUPPORT

Students will have a personal tutor within their academic department who will provide regular support and advice, whilst being available for regular catch-ups to discuss their progress and any questions they may have. They can offer students tips on course topics, academic writing support and can give personal support to a degree, but for more personal issues, our Wellbeing Support Services are available to help.





# WIDENING PARTICIPATION

We are committed to supporting students from diverse and under-represented backgrounds to study at Warwick and make the most of their university experience. We do this in a range of ways, including through our contextual admissions policy which is designed to ensure fairness in our admissions processes by taking into consideration widening participation (WP) indicators related to socio-economic and educational disadvantage.

Once at Warwick, we offer students from WP backgrounds the opportunity to access financial support, work experience, internships, and meet like-minded people through the WP Student Network, and the Warwick Scholars Programme.

🔍 To find out more, please visit:  
[warwick.ac.uk/study/outreach/  
whatweoffer/undergraduateactivities](https://warwick.ac.uk/study/outreach/whatweoffer/undergraduateactivities)







## HOW TO APPLY

Everything you need to know about applying to Warwick is on our web pages. There is up-to-date information about:

- How to apply
- Writing your personal statement
- Key dates and deadlines
- How we process your application
- After you've applied

If you are made and accept an offer, and meet any outstanding conditions, we will confirm your place and look forward to warmly welcoming you at the start of your life here at Warwick.



How to apply:  
[warwick.ac.uk/study/undergraduate/](https://warwick.ac.uk/study/undergraduate/)

## OVERSEAS APPLICANTS

At Warwick, we welcome applications from across the globe, and have dedicated teams available to advise and support, as well as a global network of Agents and Representatives.



Overseas application advice:  
[warwick.ac.uk/io](https://warwick.ac.uk/io)

School of Engineering  
University of Warwick  
Coventry  
CV4 7AL



[warwick.ac.uk/engineering](https://warwick.ac.uk/engineering)



[engadmissions@warwick.ac.uk](mailto:engadmissions@warwick.ac.uk)



+44 (0)24 7652 4129

## STUDENT FEES AND FUNDING

We want to ensure that, wherever possible, financial circumstances do not become a barrier to studying at Warwick. We provide extra financial support for qualifying students from lower income families.



Fees and funding:  
[warwick.ac.uk/studentfunding](https://warwick.ac.uk/studentfunding)

## ACCOMMODATION

We manage approximately 7,500 self-catered rooms on campus for different budgets and requirements. Living on campus in your first year gives you the opportunity to meet people and form friendships whilst never being more than a short distance from your lectures or our amazing campus facilities. At Warwick, you'll enjoy the freedom of independent living with the security of knowing you're surrounded by people who can support you.



Living on campus:  
[warwick.ac.uk/accommodation](https://warwick.ac.uk/accommodation)

## DISCOVER MORE

If you have questions about living and studying at Warwick, speak to our current students to get answers on:

- Campus life
- Accommodation
- Study support, wellbeing and more



Unibuddy:  
[warwick.ac.uk/study/unibuddy](https://warwick.ac.uk/study/unibuddy)

**Disclaimer:** This course information was accurate at the time of publication (June, 2023). While the University tries to ensure that the information is accurate, it does not warrant that this is the case. The University may need to make changes including to the course content, syllabus, delivery, methods of assessment, or to comply with external accrediting or reviewing bodies. It is therefore important that you revisit the relevant course website before you apply and when you accept an offer to ensure you are viewing the most up to date information. This information should not be construed as an offer and nor does it create a contract or other legally binding relationship between the University and you or a third party. For full terms and conditions, please visit [warwick.ac.uk/ugtermsandconditions](https://warwick.ac.uk/ugtermsandconditions)