

SCHOOL OF THE BUILT ENVIRONMENT

ENGINEERING THE FUTURE

BUILDING A REPUTATION

At the School of the Built Environment you can study the design, construction and operation of buildings within an urban context and places within which we live, work and play.

The University of Reading is one of the **UK's top-ranking** institutions for Building.¹

98% of graduates are in work or further study within 15 months of graduation; of those in full-time employment, **98%** are in graduate-level roles.²

100% of our research is recognised internationally³ and **100%** of our research impact has been classed as outstanding or very considerable.⁴

“ We are searching for some kind of harmony between two intangibles: a form which we have not yet designed and a context which we cannot properly describe. ”

Christopher Alexander
Architect and design theorist

- 1 Ranked 8th for Building in The Times and Sunday Times Good University Guide 2023 and 9th in the Complete University Guide 2023
- 2 Based on our analysis of HESA data © HESA 2022, Graduate Outcomes Survey 2019/20; includes first degree Construction Management and Engineering responders
- 3 Latest Research Excellence Framework (REF) 2021 – Architecture, Built Environment and Planning
- 4 Latest REF 2021 – Architecture, Built Environment and Planning

ARCHITECTURAL ENGINEERING AT READING

BEng Architectural Engineering⁵

MEng Architectural Engineering

Deliver engineering solutions to solve current and projected problems in the built environment. Develop your knowledge and experience in the design, management and operation of resource efficient buildings in an urban context.

Through our BEng Architectural Engineering course, you will combine the creativity of architectural and building design with a strong technical overview of energy systems and environmental engineering. This enables you to develop the wide range of skills necessary to thrive in a sector which increasingly demands that you work across disciplines.

By studying year 4 of the programme towards MEng Architectural Engineering, you will further develop your thorough understanding of renewable energy technologies, urban microclimates and energy management, and the holistic approach in designing sustainable built environments for the future.

You will learn with a multidisciplinary team of experts who teach the very best of current practice, drawing on their highly renowned research excellence and extensive experience working with industry.

Our close relationships with industry and professional institutions will give you the opportunity to build a network of industry contacts during your studies, enabling you to develop strong foundations for a sustainable career. Our focus goes beyond helping you to find a job – your personal network is key to your future.

We are engaging with the Chartered Institution of Building Services Engineers (CIBSE) and Energy Institute (EI) to work towards accreditation of the courses.

Once enrolled on either the BEng or MEng Architectural Engineering course, you can apply to take an industrial placement year⁶ and gain paid real-world experience within the sector.

⁵ We also offer a four-year BEng Architectural Engineering with International Foundation Year specifically for international students who don't meet the requirements for direct entry onto the BEng Architectural Engineering.

⁶ Conditions may apply; see inside back cover

Year 1

Year one topics include:

History of the built environment, material, and structural analysis

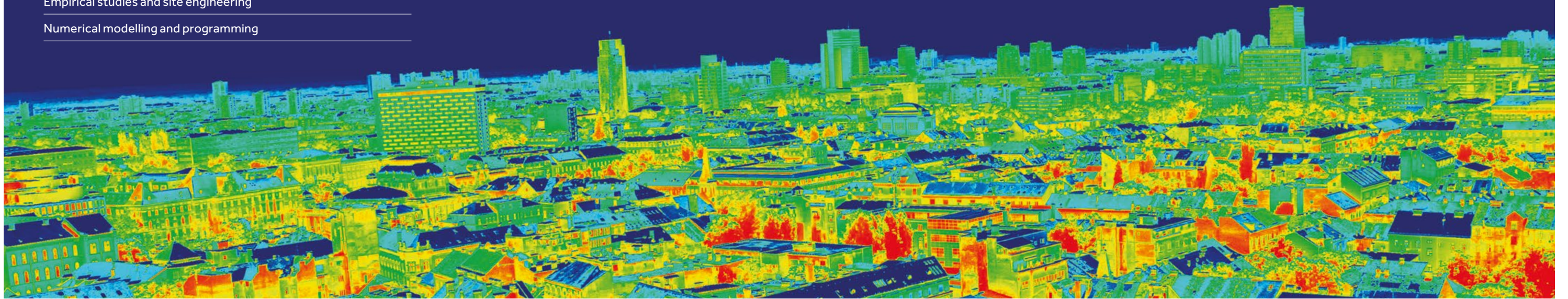
Engineering mathematics

Information and communication

Building services and project

Empirical studies and site engineering

Numerical modelling and programming



Year 2

Year two topics include:

Building services fundamentals and applications

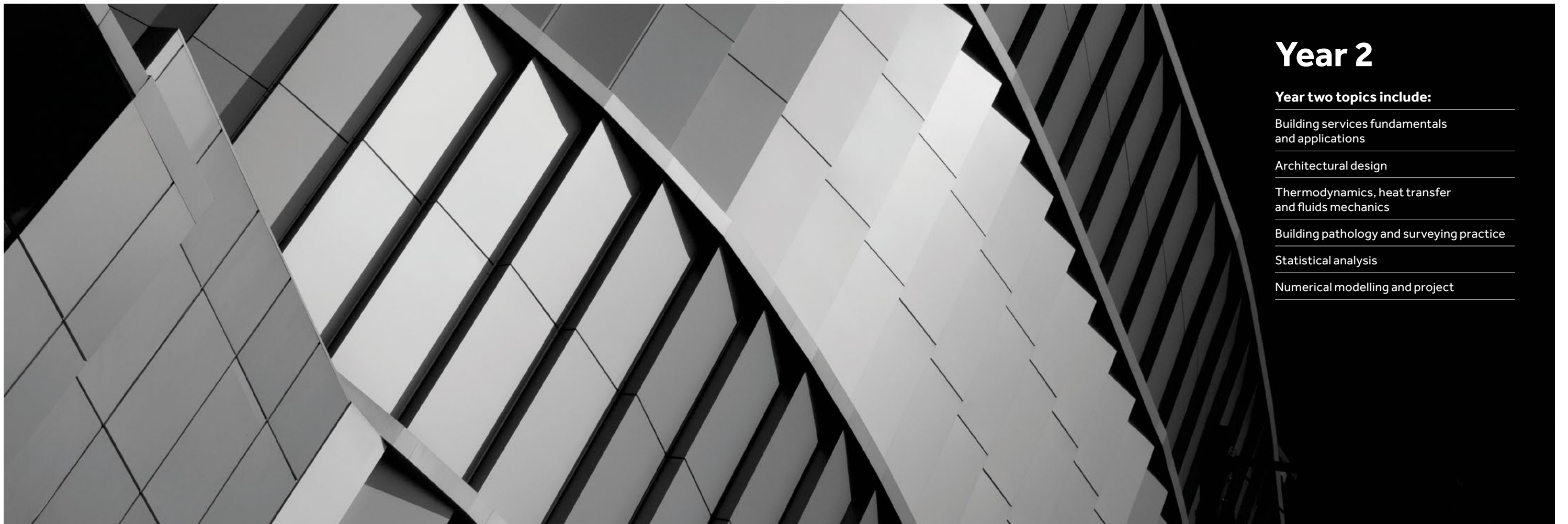
Architectural design


Thermodynamics, heat transfer and fluids mechanics

Building pathology and surveying practice

Statistical analysis

Numerical modelling and project





Year 3 for MEng students Final year for BEng students

The following topics are covered through a range of compulsory and optional modules:

Heating ventilation and air conditioning design

Sustainable built environments

Digital technology use in construction

Environmental management and assessment

Human resource, health, and safety management

Inclusive environments

International construction

In this year, BEng students will develop independent research skills by completing a dissertation. MEng students will undertake a design project.



Year 4 Final year for MEng students

The following topics are covered through a range of compulsory and optional modules:

Renewable energy

Urban microclimates and ICT and energy management

Carbon management and life cycle assessment

Urban energy systems and energy and the environment

Building information management and socio-technical change

Innovations in digital practice

In this year you will also develop independent research skills by completing a dissertation.

OUR COMMUNITY

Community has always been, and continues to be, at our heart. Our community encompasses our students, staff, alumni, partners and industry supporters, both local and global. Our strong international outlook, complemented by our graduates' skills and expertise, means they go on to achieve great things across the globe.

Reading University Construction Society

The Reading University Construction Society (RUCS) is a social and cultural hub for our students. It provides an informal networking platform and aims to increase the employability and knowledge of its members through events with leading employers and professional institutions. It is also renowned for its active calendar of social events throughout the year, including the annual gala dinner and the annual student-staff football match. RUCS is an important part of enhancing the quality of student life in the School, developing relationships between the degree cohorts, staff, professional bodies and industry.

“The School has a special sense of community where you know other students across the different years, especially through involvement with societies such as the Reading University Construction Society (RUCS). RUCS is the largest academic society on campus and is well known throughout the University. Our staff are very supportive and the relationship between the different year groups is unique – one that you would not find at many universities.”

Louise Lawson
BSc Quantity Surveying



SITE VISITS

To enhance your studies, we offer you the opportunity to experience real working environments throughout your degree course.

Visits to construction sites, practitioner offices, manufacturing facilities and large-scale urban developments allow you to see construction operations first-hand. You can gain a greater understanding of corporate and professional offices, have the chance to see new and cutting-edge practices implemented in relevant settings, and gain insights into innovative methods.

In the past we have visited the BRE Innovation Park, the National Self Build & Renovation Centre and the Weald & Downland Living Museum, as well as several manufacturing facilities which focus on prefabricated building projects.



PLACEMENTS AND STUDY ABROAD

Gain insight into industry and a valuable networking opportunity by carrying out a paid industrial placement year, or a summer placement, before your final year.⁷

You will be able to access advice and support in finding the ideal placement with our dedicated placements officer.

Placements can be located anywhere in the UK, and sometimes take place abroad in locations such as the USA, the Far East or the Caribbean. Firms offering places to our students in the past include Deloitte, Faithful and Gould, Lambert Smith Hampton, Rider Levett Bucknall, and Savills.

You may also choose to apply to study abroad for a year, subject to meeting the eligibility criteria, and boost your future employability whilst gaining a fantastic life experience.

FACILITIES

We offer excellent facilities that reflect our academic reputation, quality and ambition.

You will have access to an array of digital technologies and software, including building information modelling (BIM), building energy and urban microclimate simulations, and 3D laser scanning; as well as access to our immersive virtual reality systems that enable you to interact with 3D digitised environments. You will be encouraged to explore, experiment with and learn from these innovative technologies.

You will have access to a dedicated resource room, containing course books, key professional journals, magazines, newspapers and a wide range of industry specific documents. Online support includes virtual classrooms and lecture notes.

CAREERS

The demand for trained engineers is only set to grow, with Engineering UK estimating a shortfall of at least 22,000 graduate engineers per year (EUK, 2018).

Our multidisciplinary approach, which reflects collaborative ways of working within the industry, is designed to enable you to develop the skills and knowledge you need to be successful in your career.

Our strong relationships with a global network of industry, employers, and alumni will support you to develop contacts and identify opportunities that are the right fit for your interests.

Graduates will be well placed to pursue an impressive career in a wide range of roles such as energy engineer, building designer, facility manager/engineer, project manager, and construction manager.

Important Information

This brochure was issued in 2023 and is aimed at prospective undergraduate students wishing to apply for a place at the University of Reading (the University) and start a course in autumn 2024. The University makes every effort to ensure that the information provided in the brochure is accurate and up-to-date at the time of going to press (May 2023). However, it may be necessary for the University to make some changes to the information presented in the brochure following publication – for example, where it is necessary to reflect changes in practice or theory in an academic subject as a result of emerging research; or if an accrediting body requires certain course content to be added or removed. To make an informed and up-to-date decision, we recommend that you check reading.ac.uk/study

The University undertakes to take all reasonable steps to provide the services (including the courses) described in this brochure. It does not, however, guarantee the provision of such services. Should industrial action or circumstances beyond the control of the University interfere with its ability to provide the services, the University undertakes to use all reasonable steps to minimise any disruption to the services.

Copyright and trademarks

© University of Reading, 2023.

The University of Reading name and logo are registered trademarks. All rights reserved.

Topics

Topics are provided as a taster of the areas of study that may be available on each course. Information is correct at the time of going to press (May 2023), for a list of compulsory (core) modules please check reading.ac.uk for the most up to date information. Teaching staff on specific courses mentioned in this brochure may be subject to change.

Joint courses

Our joint courses may have extra requirements, including English language requirements. Please check the individual course pages on our website for further details.

Year abroad and placement fees

Some courses include an optional or compulsory year abroad or placement year. During this year you will only pay a partial fee which is currently set at 15% of the normal tuition fee. Check the website for the latest information: reading.ac.uk/fees-and-funding

Placements

Programmes with a Professional Placement Year (also known as 'Year in Industry' or 'Placement Year') are fully dependent on students securing their own placement opportunity, normally through a competitive recruitment process. The University provides dedicated career and application support for placement year students. Students who do not secure a placement or who are unable to complete the placement year due to extenuating circumstances, have the option to transfer to a three year variant of their programme with agreement from their School/Department.

Study abroad

The partnerships listed are correct at the time of publication (May 2023). For up to date information on the University's partnerships contact studyabroad@reading.ac.uk

Where Study Abroad is not a compulsory part of the degree programme, the University of Reading cannot guarantee that every applicant who applies for the scheme will be successful. Whilst efforts are made to secure sufficient places at partner institutions, the number of places available and the University's partners can vary year-on-year. In all cases, the University cannot guarantee that it will be possible for applicants to choose to study abroad at a particular institution.

Further, certain courses and/or institutions may require you to satisfy specific eligibility criteria. It can be a competitive process. For further information on the University's Study Abroad Scheme please contact studyabroad@reading.ac.uk



**School of Construction Management
and Engineering**
reading.ac.uk/cme

Ask us a question
reading.ac.uk/question



Athena
SWAN
Silver Award



THE QUEEN'S
ANNIVERSARY PRIZES
FOR HIGHER AND FURTHER EDUCATION
2021