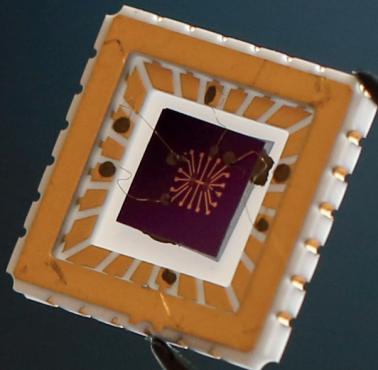


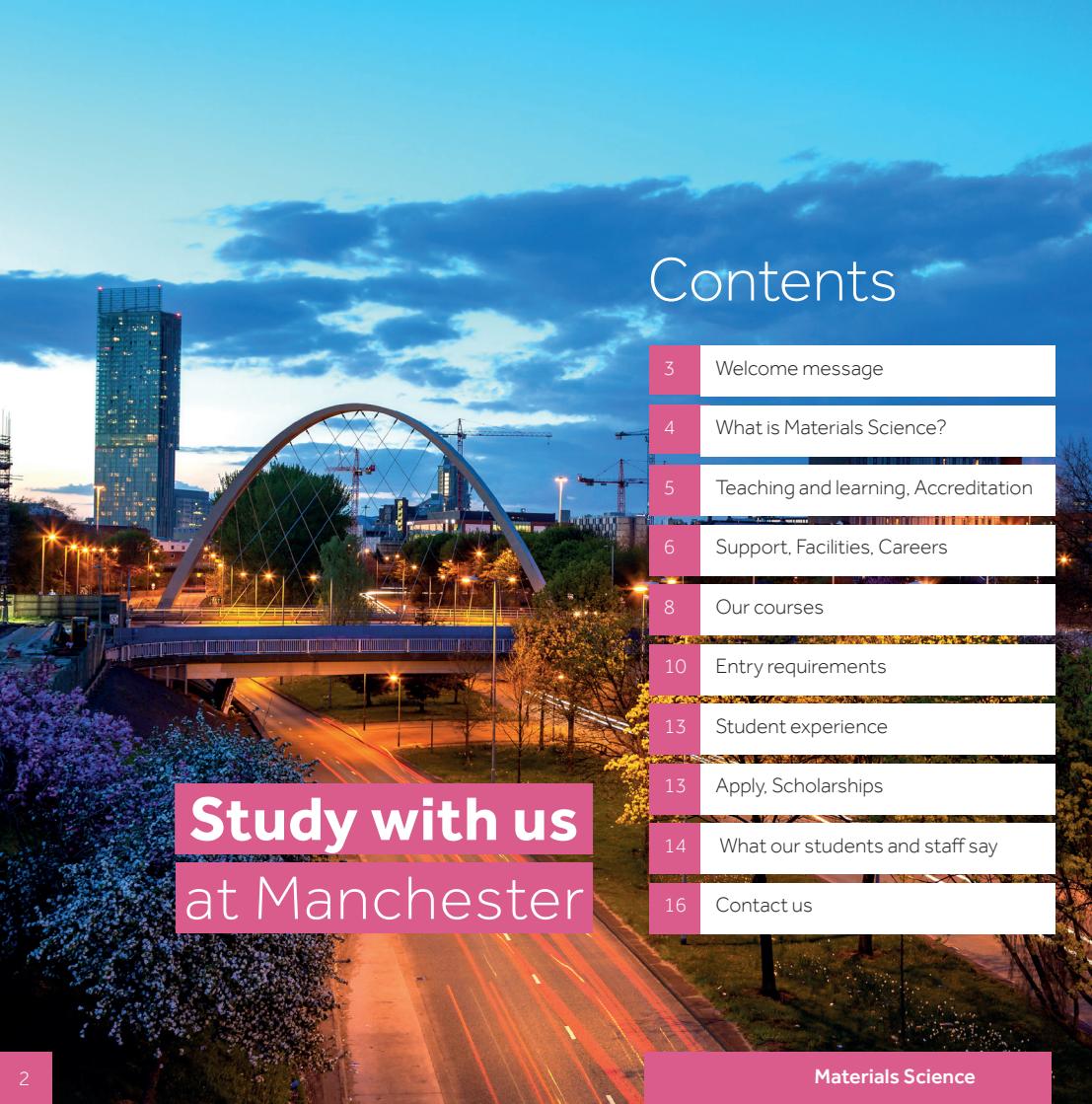


The University of Manchester



Materials

Science



Study with us at Manchester

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Welcome message

I am delighted to introduce you to the Materials Science and Engineering courses in our School. Our courses are inspired by our internationally recognised research, and our strong links with industry ensure that our degree courses are relevant to today's industrial needs and that our graduates are highly valued by employers.

We offer both 3-year BSc and 4-year MEng degrees and students can choose one of our specialist pathways or tailor their course with options that are closely aligned with their own developing interests. Our MEng courses all include an in-depth 6-month project, which can be carried out as an Industrial Placement, so there is something to suit everyone.

The huge investment in Materials Science research at Manchester, including the Graphene Engineering Innovation Centre and the Henry Royce Institute, ensures that we remain at the very forefront of current practice in the subject and that we will continue to attract and retain the very best Materials Scientists from across the globe to teach and inspire the next generation.

We look forward to receiving your application and welcoming you to our School.



Prof William Sampson, Head of School

What is Materials Science?

From the car you drive to the bridge you cross, the clothes you wear to the medicines you may take, materials shape our world.

If you want to know what makes some materials strong, others supple, and how they can be manipulated and designed to have special, smart and commercially viable properties, then a Materials Science degree could be for you.

theory with practical application to meet engineering challenges, from jet engines to nano-robots, artificial tendons to bullet-proof vests, and much more.

Materials Science and Engineering graduates are amongst the most highly sought-after by employers in a wide range of industrial sectors, and fulfil a vital role in the ongoing development of existing and new materials that deliver



Materials Science and Engineering involves an understanding of the fundamental behaviour of materials and aims to improve the performance of existing materials and develop new materials, such as graphene, for novel application. Materials science is a practical subject at the heart of all major industrial sectors, which combines

economic and environmental benefits and enhance all our lives.

An undergraduate degree from Manchester is a qualification that the world will recognise



Materials Science

Teaching and learning

By choosing to study Materials Science and Engineering at Manchester you will be joining the largest and most diverse university activity devoted to materials in Europe. You will be taught by academics with world-leading expertise in their fields and have access to unique facilities, including over 20 state-of-the-art electron microscopes, custom laboratories for all classes of materials, and world leading research centres. All our courses are designed to give you hands-on experience of using this equipment in a research project of your choice, working on anything from nano-materials, such as graphene, to advanced aerospace alloys or tissue engineering for regenerative medicine.

You will be taught by research-active lecturers with international reputations in their fields. All our courses are up-to-date and inspired by the latest discoveries of our research groups and the expertise of our staff. We focus strongly on industrial relevance and application throughout the course and give you opportunities to use state-of-the-art laboratory equipment and analytical techniques.

Accreditation

All our Materials Science and Engineering courses are accredited by the Institute of Materials, Minerals and Mining (IOM³), enabling you to work towards gaining Chartered Engineer (CEng) or Chartered Scientist (CSci) status. We offer the only UK materials programme accredited for both professional pathways, enabling you to obtain chartered status whether you end up working as an engineer or a scientist.

Our BSc programme is accredited as fully meeting the academic requirements for IEng registration and partially for CEng/CSci registration. MEng programmes are accredited as fully meeting the academic requirements for CEng/CSci registration.

In order to apply for Chartered Engineer or Chartered Scientist status, you must hold an accredited degree to Master's level—therefore graduates with an MEng degree fulfill the academic requirements to apply for CEng or CSci. Students who graduate with a BSc can then go on to take an accredited MSc course in order to fulfill the academic requirements to apply for CEng or CSci status.

Support

All students are assigned an academic adviser, which is a designated member of staff who can offer help and guidance throughout your studies. Students meet their advisor in small groups regularly throughout the course and there is a high level of staff-student contact both on a formal and informal basis. In addition to this, the School has a dedicated Student Welfare Officer who is available to support and help students with any issues or concerns they may have. The University also has a Student Support team who are based on Oxford Road to help with anything from academic advice to timetabling and project submission enquiries.

Our award-winning, student-led, Peer Assisted Study Scheme (PASS), in which upper level students support those in years one and two, provides additional support in the first couple of years and in later years the opportunity to develop leadership skills by becoming a PASS leader or coordinator.

Facilities

At Manchester you will have access to a unique range of facilities for comprehensive characterisation and development of materials, including over 20 state-of-the-art electron microscopes, custom laboratories for all classes of materials, and world leading research centres.

“I chose the course after completing a foundation year in engineering because I think that it is arguably the most important engineering discipline today, tying in with practically every other aspect of engineering. There are also plenty of attractive graduate jobs! The course facilities are really good, and I've been supported well by academic and support staff – especially with the Industrial Placement.



Careers

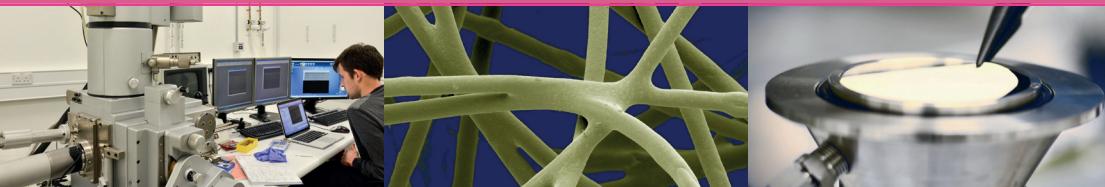
Materials Science and Engineering graduates are highly sought after by employers, and all our graduates either find employment in industry or go on to higher level study at the end of their degree. Careers include research and development, management and technical roles within both large multinationals and SMEs. Companies our recent graduates have gone on to work for include Rolls Royce, BP, Airbus, Jaguar Landrover, 3M, Smith and Nephew and DePuy.

The opportunities we offer for industrial placement or vacation work gives you the chance to focus your career choice and explore your options. A Materials Science and Engineering degree also provides an ideal springboard for postgraduate research (eg. PhD), and approximately one third of our graduates take this route.

Our courses

Materials Science

Materials Science and Engineering BSc	3 yrs	UCAS code J500
Materials Science and Engineering MEng	4 yrs	UCAS code J501
Materials Science and Engineering with Biomaterials MEng	4 yrs	UCAS code F201
Materials Science and Engineering with Polymers MEng	4 yrs	UCAS code F204
Materials Science and Engineering with Metallurgy MEng	4 yrs	UCAS code F200
Materials Science and Engineering with Corrosion MEng	4 yrs	UCAS code F203
Materials Science and Engineering with Textile Technology MEng	4 yrs	UCAS code F205



BSc Materials Science and Engineering

The three-year BSc course provides the fundamentals of Materials Science and Engineering, whilst still giving an opportunity for specialisation in the final year. Following the common 1st and 2nd years, the final year consists of 50% core units and 50% options. You can choose options to specialise in topics such as metals, polymers, biomaterials, textiles, and corrosion science. You will also choose a research project aligned to your options, giving you experience of working with the state-of-the-art facilities at Manchester.

MEng Materials Science and Engineering

This four-year MEng is our most flexible course, allowing you to choose options in the 3rd and 4th years closely aligned to your particular interests. Key features are a major (6-month) research project, giving you in-depth experience of using cutting edge research facilities, along with the option to take a half-year placement in industry. In addition to giving you a strong technical foundation, this course is designed to equip you with the transferrable skills required by industry. It also ideally equips you for postgraduate level study and research, for example towards a PhD.

MEng Materials Science and Engineering with Biomaterials

This course allows you to select from a broad range of options in Years 3 and 4 specifically tailored to meet the needs of the biomaterials sector. Units such as tissue and stem cell engineering, drug delivery and biosensors, and clinical applications of biomaterials give you an in depth understanding of biomaterials and their interactions with the body from a cellular level upward. A six-month project and optional industrial placement will give you the chance to work at the cutting edge of biomaterials research.

national and international companies in the metals field. As the largest metallurgy research group in the UK, we have subject experts in all classes of metal to support you during your research project.

MEng Materials Science and Engineering with Corrosion

The Corrosion and Protection Centre at Manchester has long been recognised as a world-leading centre of excellence in this field, with unique facilities to study the corrosion and protection of a wide range of materials. Taught by experts in the field, with a six-month research project tailored to your interests, this course will enable you to develop the specialist skills in corrosion control sought by a wide range of industry sectors including oil and gas, aerospace, and energy generation.

MEng Materials Science and Engineering with Textile Technology

This unique course combines traditional science and technology aspects of textiles with exciting and innovative applications in smart textiles, sportswear, aerospace and automotive materials, and biomedical implants. Manchester has a long history of leading developments in textile technology, and unique research facilities in this field. Through specialist options in advanced textiles manufacturing, performance enhancement, and technical textiles you will gain the specialist skills to become an expert textiles technology professional. As with all our MEng courses, the six-month research project and optional industrial placement will allow you to put these skills into practice and demonstrate your capabilities to potential employers.

Entry requirements

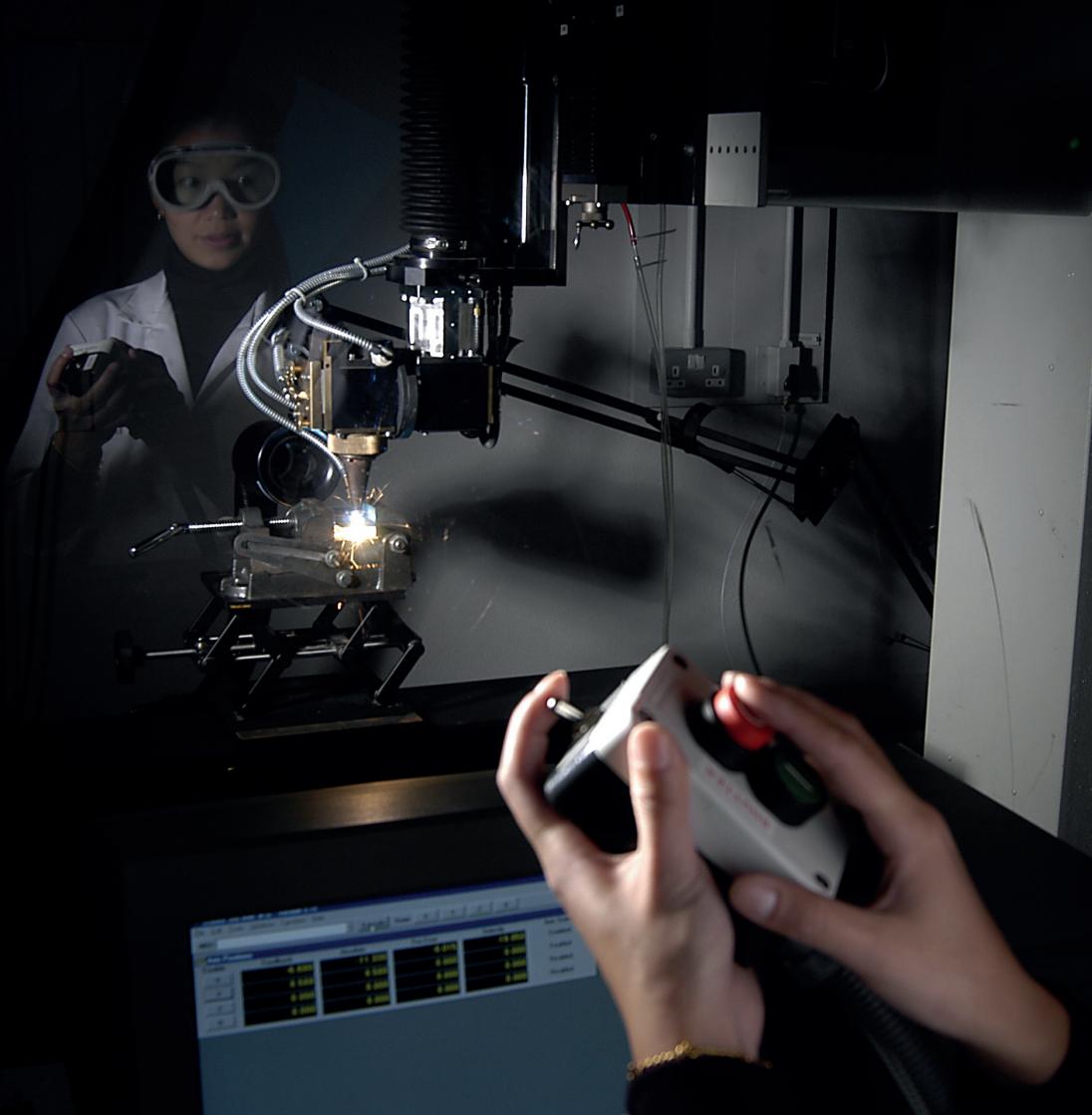
BEng

GCE A Level	AAB including 2 from Maths, Physics and Chemistry. We accept all subjects as the third A level except General Studies.
BTEC Diploma	We will consider the Level 3 National Extended Diploma for entry to our programme provided it is in a subject relevant to the chosen course and the modules taken cover sufficient material in Maths and Science. We will consider the Level 3 National Diploma and Level 3 National Foundation Diploma only in conjunction with A levels. Please contact the School for further information.
Scottish Advanced Higher	2 Advanced Highers in 2 subjects from Maths, Physics and Chemistry at Grade A plus 2 Highers at Grade B (any subjects).
Irish Leaving Certificate	AAABB in 5 Irish Higher subjects including 2 from Maths, Physics and Chemistry.
International Baccalaureate	35 points to include 6,6,5 at Higher Level to include 2 from Maths, Physics and Chemistry.
Welsh Baccalaureate	The Welsh Baccalaureate will be considered in place of the third A level.

MEng

GCE A Level	AAA including 2 from Maths, Physics and Chemistry. We accept all subjects as the third A level except General Studies.
BTEC Diploma	We will consider the Level 3 National Extended Diploma for entry to our programme provided it is in a subject relevant to the chosen course and the modules taken cover sufficient material in Maths and Science. We will consider the Level 3 National Diploma and Level 3 National Foundation Diploma only in conjunction with A levels. Please contact the School for further information.
Scottish Advanced Higher	2 Advanced Highers in 2 subjects from Maths, Physics and Chemistry at Grade A plus 2 Highers at Grade A (any subjects).
Irish Leaving Certificate	AAAAAB in 5 Irish Higher subjects including 2 from Maths, Physics and Chemistry.
International Baccalaureate	37 points to include 6,6,6 at Higher Level to include 2 from Maths, Physics and Chemistry.
Welsh Baccalaureate	The Welsh Baccalaureate will be considered in place of the third A level.

Full entry requirements, including English language requirements, are available from our website.



Student experience

The University of Manchester is committed to ensuring that you have the best possible student experience throughout your degree. The University's Stellify programme provides the opportunity for you to do more and be more during your time at university, offering a select package of activities enabling you to experience true personal and professional growth through some of Manchester's most exciting and transformational student experiences.

The Materials Society (MATSOC), run by our students, is the hub of our flourishing social and sporting activities. The society organises many events throughout the year, including the annual ball, sporting events and days out to places of interest.

Your future is important to us and the employability of our graduates drives much of what we do. Our annual 'Made in Manchester' event, aimed at promoting student placements and graduate opportunities in the field of Materials Science and Engineering, is very popular with our students and there are many other events throughout the year in collaboration with the University's award-winning Careers Service, including CV workshops, careers advice and recruitment fairs.

The Manchester Leadership Programme enables you to explore current leadership issues with experts from a wide variety of fields and spend time volunteering in the community to enhance your employability.

Apply

Applications are made via UCAS (www.ucas.com). Application deadline: **15th January**.

If you are living in the UK you may be invited to attend a UCAS Visit Day at which you will have a brief interview which forms part of the admissions process. This is an informal interview and no specific preparation is required. If you are not able to visit us in person, we may arrange an interview by Skype or telephone before an offer is made.

Scholarships

Our generous scholarships scheme provides automatic awards of up to £5k for students achieving a high level of performance at A level or equivalent. This is in addition to the Manchester Bursary scheme and other university awards for excellent students.



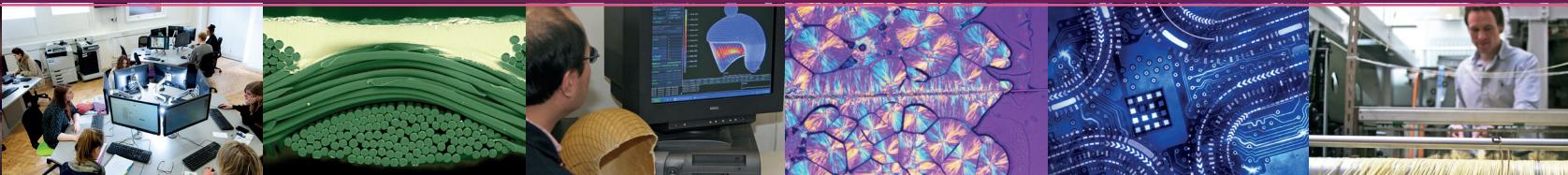
What our students say

“ Manchester is such a large university; we have a vast variety of resources, knowledge and skills at our fingertips. It's a great place to study.

Silpa Gembali

“ It's very noticeable that at Manchester you are in an environment at the very cutting edge of research, and that makes it all the more interesting.

James Woods



“ Looking back at my four years here, I wouldn't do any other degree and definitely not anywhere else in the country.

Margaret Wegrzyn

“ The facilities at the Materials Science Centre for my research are excellent. I have access to many cutting edge testing instruments and software packages.

Riaz Akhtar

Staff quotes

“ As the largest materials school in Europe, you will be taught by world leading experts in every branch of the subject, and have access to an unparalleled range of advanced research facilities.

Sarah Haigh

“ We constantly review course content and delivery to ensure we provide training for existing, new and emerging career paths in industrial and research environments.

William Sampson, Head of School

“ Our graduates stand out in the job market because of the multidisciplinary nature of their knowledge and the reputation of The University of Manchester.

Julie Gough

“ Our strong links to industry, both nationally and internationally, allow us to offer unprecedented opportunities for placements and vacation work that enable you to gain real world experience with your degree.

Joe Robson



The University of Manchester

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This leaflet was printed in June 2017 for the purposes of the 2018 intake. It has therefore been printed in advance of course starting dates. For this reason, information contained within this publication for example about campus life, may be amended prior to you applying for a place on a course of study. Course entry requirements are listed for the purposes of the 2018 intake only

Prospective students are reminded that they are responsible for ensuring, prior to applying for a course of study at The University of Manchester, that they review up-to-date course information, including checking entry requirements. Visit: www.manchester.ac.uk/study/undergraduate/courses and searching for the relevant course

Further information describing the teaching, examination, assessment and other educational services offered by The University of Manchester is available from: www.manchester.ac.uk/study/undergraduate