The artwork in the recently refurbished Bernard Katz Building (UCL Biochemical Engineering) was commissioned from Katie Aggett, a graduate of the UCL Slade School of Fine Art whose work also appears in UCL Engineering’s Roberts Building.
The contributions made by biochemical engineering to human wellbeing are having a vital positive impact in developing novel medicines, pioneering stem cell therapies and green sustainable technologies. Studying this subject opens up a world of innovation in which exciting discoveries are translated into practical processes.

Bioprocessing of New Medicines (Business and Management) BSc

**UCAS:** CN72 • 3 years

**A levels:** A*AA-AAA. Biology, Chemistry or Physics required. Standard GCSE offer (see page 31).

**IB Diploma:** 38-39 points. A total of 18-19 points in three higher level subjects including one of Biology, Chemistry or Physics, with no score below 5.

**Other qualifications:**
see www.ucl.ac.uk/otherquals

This programme is designed to give you a good grounding in both the science of bioprocessing and the management of new emerging technologies in healthcare. You will develop an understanding of the latest biomedical and diagnostic advances, together with the business skills necessary for health and clinical research management.

In year one you will study how a drug is created and made at scale, and what the challenges of creating new medicines are. You will also study the fundamentals of management and data management. In year two, you will study the internal and external factors that govern pharmaceuticals production, with an emphasis on clinical needs and their constraints. In year three you will undertake an independent research project, along with modules in business planning and the feasibility and economy of drug production.

Bioprocessing of New Medicines (Science and Engineering) BSc

**UCAS:** B190 • 3 years

**A levels:** A*AA-AAA. Biology required. Standard GCSE offer (see page 31).

**IB Diploma:** 38-39 points. A total of 18-19 points in three higher level subjects including Biology, with no score below 5.

**Other qualifications:**
see www.ucl.ac.uk/otherquals

There is a growing need for graduates with a grounding in biological sciences who are able to understand the translational new technologies required for new medicine commercialisation. This BSc focuses on the early stage development of new medicines, such as stem cell, new vaccines and potential new therapies related to healthcare.

In year one, you will study the fundamentals of biochemistry and cell biology, and look at the challenges involved in working in the biopharmaceutical industry. In year two you will learn about the intricate signalling structures within the human body, and issues relating to the commercialisation of new medicines. In year three you will undertake a research project, along with modules in business planning and the bioprocessing of new medicines. Optional modules each year enable you to tailor your degree to your interests.
The department maintains great links to the industries who use our research and employ our graduates – you can meet them at our regular seminars and events.

**Biochemical Engineering**

**Engineering (Biochemical) MEng**

UCAS: H813 • 4 years

**A levels:** A*AA-AAA, Mathematics required, plus one from Biology, Chemistry or Physics. Standard GCSE offer (see page 31).

**IB Diploma:** 38-39 points. A total of 18-19 points in three higher level subjects including Mathematics, plus one from Biology, Chemistry or Physics, with no score below 5.

**Other qualifications:** see www.ucl.ac.uk/otherquals

Biochemical Engineering translates life science discoveries into new products and sustainable manufacturing processes. You will acquire the underpinning knowledge needed to produce biopharmaceuticals, make biofuels, manufacture vaccines or grow stem cells for therapy. The MEng offers an extra year on top of the Biochemical Engineering BEng to gain research experience and take advanced modules.

In year four you can choose one of several routes to specialise, either in advanced biochemical engineering, chemical engineering or bioprocess management. There is also an option to spend the final year in industry. MEng students can also select to study abroad, with the opportunity to spend their final year at an overseas university. Whichever route you choose, you will undertake a research project, gaining practical skills. The MEng programme is ideal if you wish to pursue scientific research or management as a career.

**Engineering (Biochemical) BEng**

UCAS: H811 • 3 years

**A levels:** A*AA-AAA, Mathematics required, plus one from Biology, Chemistry or Physics. Standard GCSE offer (see page 31).

**IB Diploma:** 38-39 points. A total of 18-19 points in three higher level subjects including Mathematics, plus one from Biology, Chemistry or Physics, with no score below 5.

**Other qualifications:** see www.ucl.ac.uk/otherquals

The Biochemical Engineering undergraduate programme is unique to UCL, fully integrating engineering and biotechnology. Both BEng and MEng routes share a common curriculum of core modules, delivered through innovative teaching and practical courses. Both programmes will equip you with skills to follow a wide range of careers in this emerging sector.

In year one and two you will gain a solid foundation in both engineering and biochemistry fundamentals. This will prepare you for the third year in which you will undertake a design project, applying your skills to a real life biomanufacturing process. There are opportunities to customise the degree to your interests, beginning in year two by supplementing compulsory modules through options available in the Minor’s programme. We advise applicants to apply for the MEng programme initially as this gives you more flexibility.
Chemical Engineering /  
www.ucl.ac.uk/prospectus/chemeng

Chemical engineers apply scientific and technological expertise to develop processes which alter the chemical, physical, or biochemical state of materials. With an emphasis on safety, sustainability and cost-effectiveness, as a chemical engineer your skills will be in demand worldwide for the manufacture of essential products.

Subject overview

Total intake 140  
(2017 entry)

Applications per place 7  
(2015 entry)

Research Excellence Framework (REF)  
90% rated 4* ("world-leading") or 3* ("internationally excellent")

First career destinations (2012–2014)
• Operations Leader, Pall Corporation  
• Process Engineer, BP  
• Analyst, GroupM  
• Process Engineer, Procter & Gamble

Contact details
Dr George Manos (Admissions Tutor)  
e g.manos@ucl.ac.uk  
t +44 (0)20 7679 3810

For more information, including programme structure visit:  
www.ucl.ac.uk/prospectus/chemeng

Engineering (Chemical) MEng

UCAS: H801 • 4 years

A levels: A*AA-AAA. Mathematics and Chemistry required. Standard GCSE offer (see page 31).  
IB Diploma: 38-39 points. A total of 18-19 points in three higher level subjects to include Mathematics and Chemistry, with no score lower than 5.  
Other qualifications: see www.ucl.ac.uk/otherquals

This four-year programme builds upon the knowledge and experience offered by the Chemical Engineering BEng programme with the addition of a final-year research project and advanced modules, and is a direct route to IChemE membership and Chartered (CEng) Status.

In years one and two you will take a range of compulsory chemical and other engineering modules, supplemented with optional modules in years two and three. In year three you undertake a major design project, carried out in small teams. Through this realistic design task, where each team designs a complete process plant, including detailed unit design, environmental impact and risk assessment and costing, you learn how to address the challenges of chemical engineering. Your final year may include a research project and other compulsory advanced modules and options depending on your chosen route.

There are several routes available in the Engineering (Chemical) MEng. Each route focuses on a different area and offers different research and study opportunities.

You can transfer to either of the following degree programmes at the end of year two:

- Engineering (Chemical – International Programmes) MEng
- Engineering (Chemical with Biochemical) MEng

For more information, including programme structure visit:  
www.ucl.ac.uk/prospectus/chemeng
Engineering (Chemical) BEng

UCAS: H800 • 3 years

A levels: A*AA-AAA. Mathematics and Chemistry required. Standard GCSE offer (see page 31).
IB Diploma: 38-39 points. A total of 18-19 points in three higher level subjects to include Mathematics and Chemistry, with no score lower than 5.
Other qualifications: see www.ucl.ac.uk/otherquals

This broad-based, multidisciplinary programme provides flexible training and a unique opportunity to follow the widest possible range of careers, from design, construction and installation of processes, plants and equipment to manufacturing and marketing of products, and from research and development to administration and management of people and resources.

In all years you will take compulsory chemical and other engineering modules, supplemented with optional modules in years two and three. In year three you will also undertake a design project, carried out in small teams, where you use the skills you have gained to design a complete process plant, including detailed unit design, environmental impact and risk assessment and costing.

Graduates will need to undertake further training before being granted Chartered Engineer (CEng) status.

Aileen Gana
Chemical Engineering MEng
Third Year

“I wanted to undertake a degree that was flexible and allows me to work in various industries. Chemical Engineering does just that, as well as challenging me. Career prospects are also plentiful. I chose UCL as I wanted to study in London as well as participate in extracurricular activities to have a balanced student life.

I’m the on-campus director for the UCLU Leading Women Society. The society encourages young women to have leading roles in their career as well as supporting women’s rights in general. The experience I have gained by being a part of the committee as well as advocating for a cause that is close to my heart has been amazing. I doubt I would have had this opportunity elsewhere.”

FACULTY OF ENGINEERING SCIENCES
Civil and Environmental Engineering /
www.ucl.ac.uk/prospectus/civeng

From the design and execution of large infrastructure projects to the development of solutions which halt and repair damage to our environment, civil and environmental engineering are exciting and truly international disciplines which impact on millions of lives and could involve you in projects around the world.

Subject overview

Total intake: 96
(2017 entry)

Applications per place: 5
(2015 entry)

Research Excellence Framework (REF)
60% rated 4* ("world-leading") or 3* ("internationally excellent")

First career destinations (2012–2014)
- Structural Engineer, Price & Myers
- Graduate Civil Engineer, Balfour Beatty
- Assistant Digital Designer, Laing O'Rourke
- Modelling Analyst, Barclays
- Full-time student, MSc in Construction Economics and Management at UCL

Contact details
Ms Liz Jones (Admissions Tutor)
cege-ug-admissions@ucl.ac.uk
+44 (0)20 7679 7726

For more information, including programme structure visit:
www.ucl.ac.uk/prospectus/civeng

Engineering (Civil) MEng
UCAS: H202 • 4 years

A levels: A*A-A-AAA. No specific subjects. Standard GCSE offer (see page 31), except Mathematics and Physics (or Double Award) at grade A if not offered at A level.

IB Diploma: 38-39 points. A score of 18-19 points in three higher level subjects, with no score lower than 5. Physics must be offered at either higher or standard level.

Other qualifications: see www.ucl.ac.uk/otherquals

This four-year programme builds on the knowledge and experience offered in the Civil Engineering BEng programme with a final-year design project and advanced modules, and is a direct route to Chartered (CEng) Status. You are advised to apply for the MEng programme initially, as this offers more flexibility.

In years one and two our wide-ranging syllabus is structured around a series of multidisciplinary real-world engineering problems (scenarios). In years two and three you will also study a minor subject from a wide range offered by the faculty (including environmental engineering). A substantial research project is undertaken in year three and a major integrated design project in year four, alongside the core modules and electives. There is also an opportunity to spend year three studying abroad. Recent destinations include Australia, Canada, Hong Kong, the USA and Europe.
Apply your skills in different cultures and environments through involvement with overseas aid projects, or international study.

Emma Velterop

Civil Engineering (International Programme) MEng

Fourth Year

“Every fifth week during the first and second years is a ‘scenario week’. These enable us to complete a mini engineering project in a week and can vary from disaster relief, to station design and bridge design. At the end of the second year we constructed a bridge capable of carrying 20 or more people in the space of four and a half days. These scenario weeks are a significant part of why I decided on UCL – this opportunity to apply theory to practice.

Studying for a year abroad (at ETH Zürich, in Switzerland) has been a major highlight. ETH is a very well known, high-class technical institution, and the ability to study there was made possible by the connections at UCL. The other major benefit of the programme at UCL is that my year abroad counted towards my degree, rather than it being an additional year."

Engineering (Civil) BEng

UCAS: H200 • 3 years

A levels: AT'AA-AAA. No specific subjects. Standard GCSE offer (see page 31), except Mathematics and Physics (or Double Award) at grade A if not offered at A level.

IB Diploma: 38-39 points. A score of 18-19 points in three higher level subjects, with no score lower than 5. Physics must be offered at either higher or standard level.

Other qualifications: see www.ucl.ac.uk/otherquals

This BEng covers all the major fields of civil engineering (structures, geotechnics, fluids, design, transport studies, surveying and materials) with residential field trips throughout. Students will choose a minor subject topic from a broad range offered, including aerospace, environmental engineering, sustainable building design, programming and finance.

This programme is flexible and after year one you may choose modules based on your skills and interests. Year one develops the theoretical basis of civil engineering, structured around a series of real-world engineering problems (scenarios) and two interdisciplinary engineering challenges. In year two core knowledge is developed further and you will also choose a minor subject from a wide range offered by the faculty (including environmental engineering). In the final year there will be core modules, modules in your minor subject and a research project.

FACULTY OF ENGINEERING SCIENCES
Computer systems underlie most activities that we consider vital to everyday modern life. With relevance to commerce, science and government, as well as to communications and entertainment, studying computer science develops analytic thinking and creative problem-solving skills important for a challenging and fulfilling career.

**Subject overview**

<table>
<thead>
<tr>
<th>Total intake</th>
<th>123</th>
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<tr>
<td>(2017 entry)</td>
<td></td>
</tr>
<tr>
<td>Applications per place</td>
<td>12</td>
</tr>
<tr>
<td>(2015 entry)</td>
<td></td>
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</tbody>
</table>

**Research Excellence Framework (REF)**

96% rated 4* (‘world-leading’) or 3* (‘internationally excellent’)

**First career destinations (2012–2014)**

- Software Engineer, Shazam
- Software Developer, Cisco
- Application Developer, J.P. Morgan
- Application Designer, Deutsche Bank
- Software Developer, Credit Suisse

**Contact details**

Dr Danail Stoyanov (Admissions Tutor)

- Undergrad-admissions@cs.ucl.ac.uk
- +44 (0)20 7679 3690

For more information, including programme structure visit:

www.ucl.ac.uk/prospectus/compsci

**Computer Science MEng**

- UCAS: G402 • 4 years

**A levels**: A’AA. Mathematics required. Standard GCSE offer (see page 31).

**IB Diploma**: 39 points. A total of 19 points in three higher level subjects including grade 6 in Mathematics, with no score below 5.

**Other qualifications**: see www.ucl.ac.uk/otherquals

Through world-class teaching, this MEng develops the engineering expertise for creating cutting-edge software systems, along with the skills and intellectual rigour required for innovation and research. A strong focus on solving real-world problems is combined with building a deep understanding of computer science theory.

Years one and two follow the same structure as the equivalent BSc. In the third year you take advanced core modules and specialist options. In the final year you undertake a major research project and take modules from our specialist Master’s programmes linked to research areas in the department. There is also an option to spend the third year abroad at a partner institution in Australia, Europe, Hong Kong, Japan, Singapore or the USA.

**Computer Science BSc**

- UCAS: G400 • 3 years

**A levels**: A’AA. Mathematics required. Standard GCSE offer (see page 31).

**IB Diploma**: 39 points. A total of 19 points in three higher level subjects including grade 6 in Mathematics, with no score below 5.

**Other qualifications**: see www.ucl.ac.uk/otherquals

With its strong focus on solving real-world problems through problem-based learning, this BSc delivers world-class, industry-relevant teaching. The programme provides the essential material employers expect from a top-quality computer science graduate, and will prepare you for employment in a wide variety of industries.

In the first two years you will follow the core module. This covers all the main topics required by computer scientists: architecture, programming, theory, design and mathematics and a thorough grounding in the discipline of engineering. In your final year you will undertake substantial individual project work, and follow core and optional modules selected from either within the department or from elsewhere within UCL Engineering.
Our department was instrumental in bringing the Internet to Europe, and continues to pioneer ground-breaking technologies that change how we live.

Mathematical Computation MEng

UCAS: G430 • 4 years


IB Diploma: 39 points. A total of 19 points in three higher level subjects including grade 7 in Mathematics, with no score below 5.

Other qualifications: see www.ucl.ac.uk/otherquals

This MEng is aimed at a small cohort of students with strong mathematical ability. The programme focuses on theoretical computer science and will equip you with the ability to model complex systems, and represent, manipulate, and analyse the vast amounts of data and knowledge required to solve massively complex problems.

This programme covers a wide range of mathematical topics that underpin the analysis of computational systems, including logic, discrete mathematics, information theory, probability and statistics. The mathematical content is deeper and more substantial than our other programmes, and practical problem-solving will mesh with this theoretical work. Year two offers one optional module, which may be taken from outside the department. In the third and the final years you may choose from a wide range of specialist options, and you will complete a final-year dissertation.

Navin Bharwani

Computer Science (International Programme) MEng

Fourth Year

“The MEng is wide and diverse, and I enjoy the fact that it involves developing solutions to real-world problems. You can be proud of something that you have made yourself which is very rewarding. In our first year, we built customised robots as a means of learning about artificial intelligence and created a CPU design in the labs. Though not part of my programme, you can apply for different work placements, which gives you a competitive edge. You can also opt to study abroad as I did.

In terms of resources and computer facilities, you are provided with more than enough – allowing you to develop and explore most operating systems and devices. There are even higher research facilities such as 3D and motion sensing, and UCL also possesses its very own supercomputer.”
Electronic and Electrical Engineering / www.ucl.ac.uk/prospectus/eleceng

The impact of developments in electronic engineering has been huge – from life-saving medical equipment to mobile phones. The pace of change is rapid and exciting with new technologies emerging continually, providing huge scope to apply your technical skills and ingenuity to benefit society.

Electronic and Electrical Engineering invent and create the technology that typifies today’s high-tech society, and this four-year programme provides a thorough coverage of the theory, devices and systems that underpin it. Applying for the MEng provides the most flexibility with the opportunity to specialise at the end of year two.

Years one and two comprise a range of compulsory introductory modules designed to develop your knowledge and practice of engineering through a series of lectures, laboratory sessions and week-long engineering design projects. In years three and four you will choose optional modules from a wide range in electronic engineering and other subjects. The programme incorporates major project work in both the third and final years, with a wide choice of projects, ranging from original theoretical research to intricate design and development of software and devices.

There are several routes available in the Engineering (Electronic and Electrical) MEng. Each route focuses on a different area and offers different research and study opportunities.

You can transfer to any of the following degree programmes at the end of year two:

- Engineering (Electronic – International Programme) MEng
- Engineering (Electronic with Communications) MEng
- Engineering (Electronic with Computer Science) MEng
- Engineering (Electronic with Nanotechnology) MEng

For more information, including programme structure visit: www.ucl.ac.uk/prospectus/eleceng
See the world and broaden your horizons through our studying and internship programmes – including our exclusive placements with Cisco in California

Electronic and Electrical Engineering

Engineering (Electronic and Electrical) BEng

UCAS: H600 • 3 years

A levels: AAA. Mathematics required, plus either Physics or Further Mathematics preferred. Standard GCSE offer (see page 31).

IB Diploma: 38 points. A score of 18 points in three higher level subjects including grade 6 in Mathematics and preferably Physics, with no score lower than 5.

Other qualifications: see www.ucl.ac.uk/otherquals

Electronic and electrical engineers invent and create the technology that typifies today’s high-tech society, from devices and systems that monitor our health and wellbeing to global communications networks and renewable electric energy. The BEng gives a broad education in the mathematics, science and engineering that underpins this subject.

Years one and two comprise a range of compulsory introductory modules, while in the final year you will choose options from a wide range of electronic and other engineering subjects. Project work is undertaken every year and your final year will include a substantial engineering design project, which provides an insight into the work of an electronic engineer. The choice of projects is wide, ranging from original research to intricate design and development of software and devices.

Laura Santos

Electronic and Electrical Engineering (International Programme) MEng

Fourth Year

“Before I applied to UCL I was shown around by one of the academic staff, and recognised an engaged and vibrant community and a huge drive for learning. I just knew that UCL would be the best fit for me.

I’ve been involved in a project with Engineers Without Borders, and a few years ago I went to Peru to implement an electricity-free refrigeration system. It was a unique experience. I think UCL Advances and societies like the UCL Entrepreneurs Society and the Fleming Society are an exceptional resource to help develop our product as well as business ideas. I hope to work in sustainable development programmes and event management companies.”
The UCL School of Management creates disruptive research and entrepreneurial leaders for the complex, interconnected world of the future. Embedded in a world-class university and with a focus on innovation, technology, analytics and entrepreneurship, the UCL School of Management is reinventing management education for the 21st century.

**Information Management for Business MSci**

- **UCAS:** P111 • 4 years
- **A levels:** AAB. No specific subjects. Standard GCSE offer (see page 31).
- **IB Diploma:** 36 points. A score of 17 points in three higher level subjects, with no score lower than 5.
- **Other qualifications:** see www.ucl.ac.uk/otherquals

In close conjunction with the largest and most well-known companies in the IT, banking and finance, consulting and consumer goods industries, we have created this four-year degree, with a unique balance of IT, management, and business, which specifically aims to ensure our graduates have the tools they need to excel in, and lead, the industries of the future.

The majority of this MSci follows the same structure as the equivalent BSc, with the addition of a fourth year, allowing for advanced-level modules, and a group/individual project. We encourage students to apply for the MSci initially, which allows for more flexibility. Year one provides a base of professional skills, knowledge, and expertise upon which to build in subsequent years; year two expands upon this knowledge; and in year three you will undertake a project dissertation, in conjunction with one or more employers.

**Information Management for Business BSc**

- **UCAS:** P111 • 3 years
- **A levels:** AAB. No specific subjects. Standard GCSE offer (see page 31).
- **IB Diploma:** 36 points. A score of 17 points in three higher level subjects, with no score lower than 5.
- **Other qualifications:** see www.ucl.ac.uk/otherquals

In close conjunction with the largest and most well-known companies in the IT, banking and finance, consulting and consumer goods industries, this exciting and pioneering programme offers a unique balance of IT, management and business that is designed to ensure that our graduates have the tools they need to excel in, and lead, the industries of the future.

Year one is designed to provide you with the best possible grounding in information technology, and leadership and management, creating a foundation for the development of professional skills, knowledge, and expertise in subsequent years. Year two builds on your knowledge, ensuring you are in a strong position to have acquired the skills and expertise valued by the kinds of employers with whom we collaborate. Year three is spent undertaking your project dissertation, normally conducted in close conjunction with one or more employers.
Experience the world of business while you study, through a vibrant entrepreneurial culture and serious start-up support.

Management Science MSci
UCAS: N990 • 4 years

A levels: AAA. Mathematics required.
IB Diploma: 38 points. A score of 18 points in three higher level subjects including grade 6 in Mathematics, with no score lower than 5.
Other qualifications: see www.ucl.ac.uk/otherquals

The world’s leading companies need people who can operate in complex, innovation-intensive, data-driven environments – people who can analyse problems using quantitative tools and qualitative methods, take decisions in the face of uncertainty and risk, and deliver results through people. The Management Science MSci provides a rigorous, practical foundation in these critical skills.
The global economy is changing: billions of pieces of content are shared on Facebook every month; and companies capture trillions of bytes of information about customers, suppliers, and operations. This explosion of data is disrupting industries and creating new opportunities. This four-year programme offers students an extra year over the Management Science BSc to extend their knowledge and skills in specialist areas such as business analytics, financial engineering, marketing science, operations and project management, innovation and technology management and entrepreneurship.

Management Science BSc
UCAS: N991 • 3 years

A levels: AAA. Mathematics required.
IB Diploma: 38 points. A score of 18 points in three higher level subjects, including grade 6 in Mathematics, with no score lower than 5.
Other qualifications: see www.ucl.ac.uk/otherquals

UCL’s Management Science programmes are unlike any other degree in the UK. They provide you with an opportunity to develop strong quantitative and analytical skills, an in-depth understanding of how companies work, and a rigorous foundation in the key skills needed to build successful careers in global businesses.

Core modules in mathematics, critical analytical thinking, data analytics, design, economics and behavioural science provide a solid grounding in the concepts and tools underpinning the practice of management in complex, innovation-intensive, data-driven environments. In addition, modules including strategy, marketing, finance, decision and risk analysis and operations management provide an in-depth understanding of how companies work and build the insight and skills needed to deliver results through people. Students benefit from being part of UCL Engineering and take an Engineering Sciences minor in years two and three.

Maximilian Hofer
Management Science BSc

Second Year

“What I enjoy most about the programme is the rigorous foundation we get in order to tackle problems on a global scale. This includes mathematically intense modules, such as Data Analytics and Mathematical Foundations of Management. This might sound daunting, but students receive great support from professors and digital resources, such as online libraries or computer software.

Our programme enjoys great support from UCL Careers, which is engaged in connecting students to their future employers. Those range from finance corporations to consulting and tech start-ups. I hope to land a graduate job at one of the leading financial institutions in London. In that position I could make great use of my skills and experience in this industry in the world’s leading financial city. Owing to UCL Careers I was able to polish my CV and cover letters, which enabled me to make successful applications for internships.”

Maximilian Hofer
Management Science BSc

FACULTY OF ENGINEERING SCIENCES
Mechanical Engineering

Mechanical engineering offers the exciting challenge of using mathematical and scientific knowledge to design and develop practical devices and machines. As the world’s population grows and issues of energy consumption and transport demand become more pressing, innovation in this area is critical to our future.

Subject overview

<table>
<thead>
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<th>Total intake</th>
<th>153</th>
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<td>(2017 entry)</td>
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| Applications per place | 10 |
| (2015 entry)          |    |

<table>
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<th>Research Excellence Framework (REF)</th>
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<tr>
<td>90% rated 4* (&quot;world-leading&quot;) or 3* (&quot;internationally excellent&quot;)</td>
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<table>
<thead>
<tr>
<th>First career destinations (2012–2014)</th>
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</thead>
<tbody>
<tr>
<td>• Financial Analyst, Citibank</td>
</tr>
<tr>
<td>• Full-time student, MSc in Mechanical Engineering at Imperial College London</td>
</tr>
<tr>
<td>• Noise and Vibrations Engineer, Dyson</td>
</tr>
<tr>
<td>• Graduate Engineer, Transport for London</td>
</tr>
<tr>
<td>• Drilling Engineer, BP</td>
</tr>
</tbody>
</table>

Contact details

Dr Adam Wojcik (Admissions Tutor)

ugadmissions@meng.ucl.ac.uk

+44 (0)20 7679 7178

For more information, including programme structure visit:

www.ucl.ac.uk/prospectus/mecheng

Gabrielle Bourret-Sicotte

Mechanical Engineering MEng

Fourth Year

“I like that my degree offers within it many different subjects. We cover the extensive material that makes up mechanical engineering, and along the way we discover loads of interesting facts about the objects surrounding us. It makes for good party tricks! The MakeSpace is a fantastic facility, and being able to 3D print the ideas you’ve designed is really great.

I think UCL at superb in providing face-to-face contact to students. We know who our lecturers are and how to reach them to ask questions.

After graduating I hope to carry on into an engineering environment, ideally in the renewable energy sector.”
Engineering (Mechanical) BEng

UCAS: H300 • 3 years

A levels: AAA-AAB. Mathematics and Physics at grade A, or Mathematics and Further Mathematics at grade A and Physics at grade B. Standard GCSE offer (see page 31).

IB Diploma: 36-38 points. A score of 17-18 points in three higher level subjects including Mathematics and Physics at grade 6, with no score below 5.

Other qualifications: see www.ucl.ac.uk/otherquals

The BEng programme aims to equip you with the analytical and design skills relevant to a wide range of engineering employers. The teaching of computing and management skills is an important part of the programme.

Core modules are compulsory in the first two years, and these are shared with the MEng programme. There is a wide choice of minor modules (including languages, aerospace engineering, civil engineering and biomedical engineering) from year two onwards. You will undertake a major project as part of the third year which will give you the opportunity to apply the skills you have learnt in a real-world setting.

Engineering (Mechanical with Business Finance) MEng

UCAS: H1NH • 4 years

A levels: A*AA-AAA. Mathematics at grade A required, plus Physics preferred. Further Mathematics acceptable in lieu of Physics (see GCSE requirement). Standard GCSE offer (see page 31), except Physics at grade C if not offered at A level.

IB Diploma: 38-39 points. A score of 18-19 points in three higher level subjects including grade 6 in Mathematics, plus Physics preferred, with no score below 5.

Other qualifications: see www.ucl.ac.uk/otherquals

This four-year programme is similar to the equivalent BEng degree, but offers an additional year in which to undertake advanced modules and projects. Applying for the MEng rather than the BEng allows students to fulfil the educational requirement for Chartered Engineer status with a single qualification.

Years one and two include core mathematical, computing and mechanical engineering modules, as well as economics and accountancy subjects. In year three you may also take optional minor modules from relevant disciplines and you will conduct major engineering design and research projects with a strong business element.

Engineering (Mechanical with Business Finance) BEng

UCAS: H1N3 • 3 years

A levels: AAA-AAB. Mathematics at grade A required, plus Physics preferred. Further Mathematics acceptable in lieu of Physics (see GCSE requirement). Standard GCSE offer (see page 31), except Physics at grade C if not offered at A level.

IB Diploma: 36-38 points. A score of 17-18 points in three higher level subjects, including Mathematics and Physics (grade 6 in Mathematics preferred), with no score lower than 5.

Other qualifications: see www.ucl.ac.uk/otherquals

This programme is designed to produce engineering graduates with a well-rounded understanding of economics, accounting and business practice. These skills are precisely those required by industry for graduates likely to be given significant managerial responsibility at an early stage in their career.

Years one and two include core mathematical, computing and mechanical engineering modules, as well as economics and accountancy subjects. In year three you may also take minor modules from relevant disciplines and you will conduct major engineering design and research projects with a strong business element.
Physics and engineering bring new knowledge and technologies to diagnosing and treating disease. With a research focus on medical imaging, physiological monitoring and the development of implanted devices, our field offers the excitement of discovery and the reward of contributing to human wellbeing.

Subject overview

Total intake

- 47

(2017 entry)

Applications per place

- 8

(2015 entry)

Research Excellence Framework (REF)

- 95% rated 4* (‘world-leading’) or 3* (‘internationally excellent’)

First career destinations (2012–2014)

- Trainee Clinical Scientist, King’s College Hospital NHS Trust
- NHS Manager, St George’s Healthcare NHS Trust
- Full-time student, PhD in Medical Physics at the University of Cambridge
- Vision Scientist, Great Ormond Street Hospital for Children NHS Foundation Trust
- IT Graduate Trainee, Schroders

Contact details

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For more information, including programme structure visit:
- www.ucl.ac.uk/prospectus/medphys

Engineering (Biomedical) MEng

UCAS: H160 • 4 years

A levels: AAA-AAB. Mathematics and Physics required; grade A in Mathematics preferred. Standard GCSE offer (see page 31).

IB Diploma: 36-38 points. A score of 17-18 points in three higher level subjects, including Mathematics and Physics (grade 6 in Mathematics preferred), with no score lower than 5.

Other qualifications: see www.ucl.ac.uk/otherquals

Building on the BEng, the additional year in this four-year MEng programme allows you to explore a broader spectrum of biomedical engineering and medical physics topics, and to further develop your transferable skills through project work. It prepares graduates to work in a wide range of technology areas from imaging and diagnosis to monitoring and treatment.

Highly interdisciplinary, the MEng draws on a wide range of subjects covering topics in mathematics, engineering and science to equip you to tackle complex healthcare challenges through the design and development of medical technologies. In the final two years you will choose from a range of modules across UCL Engineering and beyond. Much of the programme is taught through realistic, practical team-based problem solving tasks. Major project work is a key feature of the final years, reflecting the depth and breadth of UCL’s research strengths in the field.

Engineering (Biomedical) BEng

UCAS: HC60 • 3 years

A levels: AAA-AAB. Mathematics and Physics required; grade A in Mathematics preferred. Standard GCSE offer (see page 31).

IB Diploma: 36-38 points. A score of 17-18 points in three higher level subjects, including Mathematics and Physics (grade 6 in Mathematics preferred), with no score lower than 5.

Other qualifications: see www.ucl.ac.uk/otherquals

This exciting programme provides a grounding in the practical application of engineering principles and design concepts to healthcare technologies. It draws on the research strengths of UCL and its excellent links to local hospitals, and prepares graduates to work in a wide range of technology areas from imaging and diagnosis to monitoring and treatment.

The programme’s core modules introduce you to the foundational mathematics, science and engineering needed to design and develop complex medical technologies. It is highly interdisciplinary, drawing on a range of engineering and science subjects with strong supporting elements in transferable skills. Much of the programme is taught through realistic, practical team-based problem solving tasks. The final year of the programme includes a major project linked to research strengths across UCL Engineering and UCL’s substantial healthcare partners.
**Medical Physics MSci**
UCAS: F350 • 4 years

**A levels:** AAA-AAB. Mathematics and Physics required; grade A in Mathematics preferred. Standard GCSE offer (see page 31).
**IB Diploma:** 36-38 points. A score of 17-18 points in three higher level subjects including Mathematics and Physics (grade 6 in Mathematics preferred), with no score lower than 5.

**Other qualifications:** see www.ucl.ac.uk/otherquals

This four-year programme offers an extra year over the Physics with Medical Physics BSc in which you will extend your knowledge by taking additional advanced modules. You are advised to apply for the MSci programme initially but transfer between the BSc and MSci is possible during the first two years.

Core modules introducing you to medical imaging, biophysics and the physics of the human body are compulsory in years one and two. During years three and four you will choose medical physics modules each year from a range of options and, in your final year, you will work on a major project with one of the department’s research groups. As well as attending lectures, you will also undertake tutorials and practical work. Projects are conducted in active, well-equipped research groups, often involving collaborations with local hospitals.

**Physics with Medical Physics BSc**
UCAS: F351 • 3 years

**A levels:** AAA-AAB. Mathematics and Physics required; grade A in Mathematics preferred. Standard GCSE offer (see page 31).
**IB Diploma:** 36-38 points. A score of 17-18 points in three higher level subjects including Mathematics and Physics (grade 6 in Mathematics preferred), with no score lower than 5.

**Other qualifications:** see www.ucl.ac.uk/otherquals

This three-year programme offers an excellent education in a thriving field of science and engineering. The foundation in core physics together with the major areas of physics applied to medicine prepare you for a wide variety of careers inside and outside medical physics, including those in scientific research and industry.

Core modules introducing you to medical imaging, biophysics and the physics of the human body are compulsory in years one and two. During year three you will choose three medical physics modules from a range of options and you will work on a major project with one of the department’s research groups. As well as attending lectures, you will also undertake tutorials and practical work. Projects are conducted in active, well-equipped research groups, often involving collaborations with local hospitals.

**Stecia-Marie Fletcher**
Medical Physics MSci

**Fourth Year**

“When considering choices for my undergraduate degree Medical Physics appealed to me because it used my favourite subject, physics, in a health-related field. I always wanted to get involved in medical sciences, but I felt that a degree in medicine was not for me. At the time I applied, UCL was one of the only universities in the UK that offered my degree. In addition, it offered me the opportunity to study at a renowned institution in one of the best cities in the world.

The department is small and therefore it is easy to approach lecturers and to get involved. I have also had the opportunity to complete two summer internships after my second and third years.”
Security and Crime Science /
www.ucl.ac.uk/prospectus/crime

Crime science is devoted to finding what works to cut crime. It applies scientific methods and knowledge from many disciplines to understand, detect and counter crime and security vulnerabilities. Through this, crime scientists can deliver sustainable and often immediate reductions in crime and other threats to security.

This new BSc aims to create a generation of leaders in the crime, intelligence and security sectors. Using science from different disciplines (psychology, political science, statistics, computer science, and forensic sciences) you will learn to tackle real-world crime problems and develop creative and ethical ways to increase security in a changing world.

This programme is organised along four strands: crime theories, analytical techniques, crime and practice, and a project. It will equip you with specialist knowledge about crime, intelligence and forensics, as well as transferable skills in statistics, pattern analysis, systems design and project management. Each term, you will apply your skills to examine crimes such as terrorism and cybercrime, and develop effective strategies to prevent them. In the final year you will explore further the multidisciplinary nature of crime analysis, detection and prevention during a six-month project.

Subject overview

Total intake 12
(2017 entry)

Applications per place 4
(2015 entry)

Research Excellence Framework (REF)
74% rated 4* ("world-leading") or 3* ("internationally excellent")

First career destinations (2012–2014)
• The first cohort of students admitted to the Security and Crime Science BSc is due to graduate in 2019. Therefore careers data for students on this programme is not yet available

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For more information, including programme structure visit:
www.ucl.ac.uk/prospectus/crime

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