Undergraduate Courses in Physics and Astronomy
Contents
3 Welcome to the department of Physics and Astronomy
4 Why Choose Physics at the University of Leicester?
6 Physics and Astronomy Degree Courses
8 Course Modules
10 Teaching, Learning and Assessment
12 Resources and Facilities
14 Research in Physics and Astronomy
16 Employability and Careers
18 Course Opportunities
20 Student Life
22 Applying to the Department of Physics and Astronomy
23 Entry Requirements

“Student achievement is high and the students have a real sense of belonging to the department.”
Prof. Iain Steele, External Examiner, Liverpool John Moores University
Welcome to the department of Physics and Astronomy

The department of Physics and Astronomy at the University of Leicester is a world-class centre for teaching and research.

We are a friendly department of 41 research-active academic staff, admitting around 120 undergraduate students each year. This means the best staff-student ratio in the UK, a wide range of module choice, and the opportunity to be taught by academics who are passionately engaged in advancing their fields.

We pride ourselves on our commitment to teaching and excellent student support. Studying physics at Leicester will enhance your academic knowledge and problem solving ability, develop your confidence and communication skills, and provide excellent career opportunities.

Choosing your degree is one of the most important decisions you will make. We hope that you are considering studying with us, and that the information in this brochure will help you to make your choice. We would certainly encourage you to visit us at an Open Day or a post-application Visit Day, and to contact our admissions team (physics@le.ac.uk) if you have any questions.

Professor Paul O’Brien, Head of Department
Why choose Physics at the University of Leicester?

**A department with a world class reputation**

The wide-ranging research excellence in the department is reflected in the breadth of content and quality of teaching in all of our degrees. Our course covers the Universe from the quantum scale to the cosmological. No matter where your interests lie, you will be taught by international experts.

**A flexible degree**

You can choose to follow a broad physics course covering many topics or to specialise in astrophysics, nanotechnology, planetary science, or space science and technology. You can easily mix and match option courses and even projects from different specialities to suit your individual interests and career aspirations as they develop throughout your time at University.

**A friendly, vibrant atmosphere**

We have an excellent staff-student ratio (the best in the UK)* and we operate an open door policy. This means teaching staff make themselves available throughout the day for you to get the support you need. The main physics building has a common room, computer suites, teaching laboratories and quiet study areas for students, which add to the sense of community in the department.

* Source: Guardian University Guide 2016

It is a challenging course but you leave with a broad knowledge of physics and a wide range of skills, which leaves you open to many different career options.

Emma, MPhys, Year 4 Student
An outstanding track record in graduate employment

We have strong links with world leading companies in industry, business and scientific research, and you will have the opportunity to enhance your CV by working on an optional ten week research project with one of our industrial partners. You can also add to your experience and achievements by mentoring students in local schools, spending time abroad at one of our partner universities, or working on one of our student led projects outside of the curriculum.

Centre of excellence

The department is one of only three UK physics departments to have been awarded the prestigious status of a Centre of Excellence in Teaching and Learning (CETL).

Accreditation

All of our undergraduate degrees are accredited by the U.K. Institute of Physics (IOP). This means the syllabus covers the IOP approved “Core of Physics”, supplemented with option modules based on the world leading research in the department.
We offer five honours programmes in Physics and Astronomy, at both BSc and MPhys levels. All of our degrees share a common core of essential physics and mathematics, and offer a wide choice of short option courses in each year. Your degree “flavour” reflects the option courses you take in each year and your choice of research projects, but our degree programme is designed to give you plenty of flexibility to choose different options while you study.

Which Physics Degree is the right choice for me?

**Physics BSc/MPhys**

Physics is the most fundamental of the sciences. It is concerned with the study of matter and energy on all scales from the sub-atomic to the size of the visible Universe. As a physics student at Leicester you will acquire an appreciation of the scope and impact of modern physics and the use of mathematics, computing and experimentation to solve important real-world problems.

This programme offers the widest choice of option modules.

**Physics with Astrophysics BSc/MPhys**

We run the longest established Physics with Astrophysics degree in the UK. Astrophysics is about understanding the Universe at large, from the lives and deaths of stars to the formation of galaxies, from compact black holes and neutron stars to the largest clusters of galaxies. You will have the opportunity to study a range of specialist astrophysics options, supported by the diverse activities of the department’s two astrophysics research groups (theoretical and observational).

This programme reflects a preference for astrophysics option courses (eg. Active Galaxies, or Cosmological Structures) and research projects.

**Physics with Nanotechnology BSc/MPhys**

Nanotechnology is about the physics of the very-small – designing, fabricating and understanding the structures at the nanoscale that are contributing to transformative new technologies in computing, medicine, energy production and the environment. You will study the quantum theory of these structures, building on the department’s research
expertise in magnetic nanostructures, artificial atoms and nanoparticles.

This programme reflects a preference for nanotechnology option courses (eg. Nanostructures, or Advanced Materials) and research projects.

Physics with Planetary Science BSc/MPhys

Our academics lead the National Centre for Earth Observation. The specialist option courses in planetary science are supported by the activities of three of the department’s research groups. You will have the opportunity to study topics as diverse as climate and atmospheric physics, the aurora of gas giants, and comet and planet formation.

This programme reflects a preference for planetary science option courses (eg. Planetary Surfaces, or Solar Terrestrial Relations) and research projects.

Physics with Space Science and Technology BSc/MPhys

We have the largest campus-based space research activity in Europe, and the space science and technology options that you will study are based on this research. Space Science encompasses earth observation, space astronomy and the study of the Solar System. Space technology is the means by which this science can be done.

This programme reflects a preference for space science and technology option courses (eg. Rocket Propulsion Systems, or Human Spaceflight) and research projects.

Frequently Asked Questions

What is the difference between an MPhys and a BSc?

The BSc degree is a three year course and provides an excellent route to a very wide range of careers in industry and business. The MPhys degree is a four year course, aimed more at those considering a career or further training in scientific research.

Can I change between degree courses?

Yes. Transfer between BSc and MPhys degrees is possible during first and second year. It is also possible to transfer between different speciality degrees as long as you have taken the required number of option courses.

Will I miss out on some physics by doing a ‘Physics with …’ degree?

No. All our degrees are physics degrees, and include the IOP-approved “Core of Physics”. Choosing a speciality “flavour” simply reflects your preference for option courses and projects.
Core and option modules

All our degree courses consist of a common core of physics and mathematics, plus option modules in each year. The core modules contain the essential physics and mathematics you need to ensure the widest possible employment opportunities once you graduate.

You will have the chance to shape your degree the way you want. The department offers a wide range of option modules that explore a diverse range of topics in pure and applied physics. Our course is designed to be flexible so you can choose options and even research projects from any of these specialist areas.

In the first and second years the emphasis is on core material, whilst in the third and fourth years the balance switches from core physics and maths to advanced specialist options and research projects. In each year you choose four options and, to qualify for a specialist degree you must take at least half of your options from within that specialism.

The lecturers always have their door open when they are in, meaning that they’re always willing to help you with work.
Aine, BSc, Year 3 student
<table>
<thead>
<tr>
<th>YEAR</th>
<th>CORE</th>
<th>OPTIONS</th>
</tr>
</thead>
</table>
| FIRST | Dynamics  
Electricity and Magnetism  
Light and Matter  
Waves and Quanta  
Mathematical Physics 1.1 & 1.2  
Laboratory Physics 1  
Group Research Project 1 | Choice of 4 option courses  
Digital Electronic Systems  
Great Experiments  
Modern Physics  
Nanophysics | Observational Astronomy  
Planetary Exploration  
Science from Space  
Space Technology  
Terrestrial Planets  
The Sun and Stars |
| SECOND | Relativity and Particles  
Waves and Fields  
Condensed Matter Physics  
Electromagnetic Fields  
Scientific Inference 1  
Mathematical Physics 2  
Laboratory Physics 2  
Group Research Project 2 | Choice of 4 option courses  
Fractals and Chaos  
Galaxies and the Universe  
Jovian Planets and Moons | Planetary Remote Sensing  
Quantum Devices  
Spacecraft and Mission Design  
Stellar Atmospheres  
Management for Science A  
Science Communication A  
Sustainable Futures A |
| THIRD | Quantum Mechanics  
Atoms and Nuclei  
Radiation and Matter 1  
Advanced Vector Calculus  
Fourier Transforms  
Physics Challenge  
Pair Research Project  
Physics/Industry Research Project  
Mathematical Physics 3 (MPhys) | Choice of 4 option courses  
Active Galaxies  
Elementary Particles  
Extreme Stars  
Human Spaceflight  
Life in the Universe  
Medical Physics  
Advanced Materials | Planetary Science  
Relativity  
Advanced Propulsion Systems  
Stellar Structure and Evolution  
The Earth from Space  
Cosmology  
Planetary Plasma Environments  
Magnetic Systems  
Physics in Education  
Management for Science B  
Science Communication B  
Sustainable Futures B  
Physics in Education |
| FOURTH | Plasma Physics  
Radiation and Matter 2  
Dynamical Systems  
Fluids  
Advanced Study Project  
Research Project  
Journal of Special Topics | Choice of 4 option courses  
Cosmological Structures  
General Relativity  
Ionospheric Physics  
Nanostructures  
Planetary Surfaces | Quantum Fields  
Quantum Theory of Solids  
Scientific Inference 2  
Space Instrumentation  
Space Plasmas  
Statistical Mechanics  
Supermassive Black Holes  
Quantum Finance |
We aim to create a challenging and exciting learning environment which will help you to make the most of your studies. We have an excellent staff-student ratio and we are able to offer a large number of small-group activities in addition to traditional lectures. This means you will benefit from working directly with our leading academics. Our open door policy means that teaching staff will be available to talk, and you can get the support you need.

**Lectures**

Each core module starts with lectures, and many different lecturing styles are used depending on the material that is covered. The first year core physics lectures are all based around a common physics textbook – you will be given your own copy at the start of the year. During the first and second year, core lectures are complemented with tutorials, problem solving workshops, seminars and laboratory classes.

**Workshops**

Workshop classes complement the core physics and mathematics modules. They provide an opportunity to work through exercises in small groups with teaching staff on hand to help you through problems.

**Seminars**

Each core (physics and mathematics) module includes regular homework. Seminars are small group classes where you receive your marked work, and talk through the problems and solutions from the previous week.

**Laboratory classes**

Experimental work is an essential aspect of physics education and research, and laboratory training is an integral part of our degree programme. You will explore a range of experiments covering the main areas of physics in our dedicated teaching laboratories under the guidance of our expert research and teaching staff.

**Academic support**

You will be assigned an academic tutor who will keep track of your progress. Tutorials are a very important part of our
first and second year: each week you will meet with your tutor and the rest of your tutorial group (usually four students per group) to discuss areas of the course or study skills, cover more advanced topics, or look into exciting new developments in physics research.

**Project work**

Project work starts in the first year. Initially this is in the form of short research projects, in which groups of around four to eight students tackle problems that involve some aspect of both experimentation and theory.

By the third and fourth years, project work has developed to the stage where you will experience a genuine taste of research at the cutting edge. In your third year you will work in a small group under the supervision of a staff member, and in your fourth year you will work on a research project one-on-one with a member of staff.

In the third year you will also have the option of a project set by one of our colleagues in industry: working on a time-critical problem with industrial significance, reporting directly to the company involved.

**Physics Challenge and Journal of Physics Special Topics**

These innovative courses can be a great deal of fun, but serve a serious educational purpose.

In the weekly, Physics Challenge, third year students work in teams to solve tricky, real world problems involving some imagination, estimation or approximation. Like many problems in industry, there are often no right answers but the teams compete to find and present the best answers.

Our fourth year students write short research articles for the department’s own Journal of Special Topics. This provides a crucial insight into the world of scientific publishing and peer review, as well as experience in communicating the results of scientific research.

The journal has generated a great deal of media exposure for our students. It is also highly praised by the UK Institute of Physics who said that it was ‘an excellent advertisement for the physics department in addition to being a valuable piece of work that the students could show prospective employers.’ Highlights of the annual journal are available online at [go.le.ac.uk/physics-pst](http://go.le.ac.uk/physics-pst)

**Feedback and assessment**

Our course is designed to provide comprehensive and targeted feedback, especially as part of workshops, seminars, tutorials and projects.

You will be assessed by a variety of methods including formal examinations and course work (including workshop and seminar problem classes). Laboratory work is primarily assessed in real time and project work is assessed through written reports and oral presentations. In the first year the overall assessment mark is approximately 30% continual assessment and 70% exam. The first year is a qualifying year; your final degree will be based on your marks in later years with relative weights 40/60 (second/third year for BSc) or 20/30/50 (second/third/fourth year for MPhys)

### How It Fits Together – A Typical Week

Your personal weekly timetable will change from week to week as the core lecture and laboratory modules progress, and it will depend on which options you are taking. The table gives an example of a typical week in the first year.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core lectures</td>
<td>5</td>
</tr>
<tr>
<td>Option lectures</td>
<td>2</td>
</tr>
<tr>
<td>Tutorials</td>
<td>1</td>
</tr>
<tr>
<td>Seminars</td>
<td>2</td>
</tr>
<tr>
<td>Workshops</td>
<td>2</td>
</tr>
<tr>
<td>Labs &amp; group projects</td>
<td>6</td>
</tr>
<tr>
<td>Private study</td>
<td>10-15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>28-33</strong></td>
</tr>
</tbody>
</table>
As a Physics and Astronomy student you will have access to the outstanding facilities in the department.

These include a supercomputer, clean rooms, microscopy centre, undergraduate observatories, teaching and research laboratories.

**Computers and quiet study areas**

We have two computer suites for students and wireless connectivity throughout the department and the rest of campus. These provide networked access to the University’s campus wide service, including access to the 500-core undergraduate supercomputer. Our quiet study areas (one is reserved just for first year students) provide more computer access. Students use these facilities for group work, report writing, data analysis, preparing presentations and scientific computing.

**Teaching space**

The main Physics building houses two large and two small lecture theatres plus eight seminar rooms. Most of your taught sessions will happen in the main Physics building. Students spend most of their time in the department, which creates a real community atmosphere.
**Common room**

The department’s common room is open to students and staff. It’s a good place to mix, work informally or have a cup of coffee and some lunch.

**Library**

We continually invest in all our facilities to meet the needs of all our students. The award-winning £32 million David Wilson Library is a light, airy, five-storey building providing state-of-the-art facilities for all our students.

We invest over £6 million per year in the Library. Self-service loan and return, group study rooms, hundreds of PCs, netbook loans, wireless access throughout, staffed Help Zones, 24/5 opening during term time, plus a bookshop and café create a first-class study environment.

Our Librarians can provide detailed advice on finding and using information, and help you make the most of the resources available in the Library and on the web. You can also use our online guides to finding information for your coursework.

There is access to over one million printed volumes and a digital library of 23,000 electronic journals and over 350,000 eBooks. Our electronic resources can be accessed from anywhere you have an Internet connection.

The Library: [www.le.ac.uk/library](http://www.le.ac.uk/library)

**Supercomputing**

The department houses three supercomputers: ALICE (3000+ processing cores) is the University’s High Performance Computing Cluster; DiRAC (4000+ cores) is part of the UK’s integrated supercomputing facility for research in particle physics, astrophysics and cosmology; and SPECTRE is a 500 core supercomputer reserved for undergraduate use (including physics computer workshops and projects).
We have a track record of over 50 years of world leading research in the department. Our research interests range from supermassive black holes to the smallest nanoparticle.

All of our 41 teaching staff (professors and lecturers) are research active with reputations built on an international level. The teaching you receive and knowledge you acquire will be based on this pioneering research. The department also employs over 100 research and technical staff and supports more than 60 PhD students.

The main Physics building accommodates several research groups – Radio and Space Plasma Physics, X-ray and Observational Astronomy, Condensed Matter Physics and Theoretical Astrophysics – as well as centres for supercomputing, microscopy, Gamma and X-ray astronomy, radar sounding, and the Swift UK Data Centre.

Our purpose built Michael Atiya building houses the Space Research Centre and provides laboratories, clean rooms, and facilities for Earth Observation Science and Bio-imaging.

You can find more about the research in the department on our website www.le.ac.uk/physics
**Student research projects**

We encourage our students to get involved in research. In your third and fourth year, you will have a real opportunity to make a contribution to physics research.

The wide ranging research interests in the department are reflected in the enormous range of undergraduate projects that we offer.

Recent undergraduate projects include: searching for black holes, developing equipment to produce nanoparticles, investigating the Martian magnetosphere, looking at the quantum physics of graphene, and modelling galactic mergers.

**Postgraduate research opportunities**

The department offers PhD opportunities in the following areas: experimental and theoretical condensed matter physics, earth observation science, radio and space plasma physics, space projects and instrumentation, theoretical astrophysics, and X-ray and observational astronomy.

More information at: [www.le.ac.uk/physics](http://www.le.ac.uk/physics)

**Technology transfer**

The department’s ground-breaking work in detector technology has led to three spin-out companies which operate out of the Space Research Centre at the University. Bioastral specialise in gamma-ray detectors for cancer care in the medical industry. Spectral ID produce award winning detectors which detect high end counterfeit goods, and CityScan detect and map atmospheric pollution.

**Observatory**

The University observatory has two computerised telescopes: a 20-inch PlaneWave with CCD camera, and a 12-inch Meade. Students use the telescopes for projects, for public outreach events and, (via a booking system) simply for looking at the sky!
As a Physics and Astronomy student at the University of Leicester you will gain experience and confidence in problem solving, experimentation, analysis, computer programming and independent thinking. Group projects in the first, second and third years develop communication, presentation and team working skills, while research projects in the third and fourth years help to nurture the skills required of a successful scientific researcher.

In addition to the experience you will gain from the core-curriculum there are many optional activities which you can use to build your skills and enhance your CV.

Develop links to industry

As part of your third year you can choose to work directly with one of our industrial partners on a ten week project. During these optional Group Industrial Research Projects (GrIPs) you will obtain an understanding of the needs of business through applied research into a relevant industrial problem. You will gain invaluable project, budget and team management experience in a workplace environment working on a project that has real impact for the industrial clients.

Recent projects have covered the spectrum from investigating nuclear magnetic resonance signals in oil field boreholes for Weatherford International, to building a new beehive monitoring system for the Leicestershire Bee Keepers Association.

You can also use vacation employment at an approved industrial post to count towards your degree or opt to spend your third year on an industrial placement. The careers tutor in the department will offer advice and assist you in finding a post.

Summer Undergraduate Research Experience (SURE)

SURE is a prestigious six-week summer programme in which we support around ten undergraduate students undertaking research within the department and the Space Research Centre.

Graduate careers

Physics graduates have a very wide range of career opportunities. A physics degree is seen by employers as evidence of success on an intellectually demanding course, one that includes mathematical, computational, and practical problem solving, and project work. The chart overleaf outlines the primary destinations of recent graduates.

“I loved my time on the SURE internship, the department was very friendly and gave me a great insight into the work of a researcher.”

Amy, MPhys, Year 3 Student
Career Development Service

The Career Development Service can help you gain the extra dimension you need to stand out – real-world skills and qualities that will not only enhance your early career prospects, but will stay with you for life. The way to make the most of you is to work with them the moment you arrive at Leicester.

The Career Development Service looks at the bigger picture and encourages you to be reflective and think about what you want out of a career. You can then explore your options and begin looking at what you need to do to fulfil those big ambitions.

Your academic talent is a key ingredient to success, but having relevant experience is another vital element in securing that dream role after you graduate. The Career Development Service provides a multitude of opportunities to ensure you’re able to acquire the experience needed to get that all important foot on the ladder. So whether you want to make a difference in the voluntary sector, reach the top in high-flying business or be the next big thing in media, there are specially designed programmes and activities that can support you in getting the skills, experiences and exposure you need.

The Career Development Service has its own network of graduate employers who tell them what they want in an employee in terms of skills and knowledge. Graduate employers visit campus all year round, offering workshops and talks on different career pathways. You have the chance to network, get the inside knowledge on industries and find out exactly what employers are looking for. [www.le.ac.uk/careers](http://www.le.ac.uk/careers)

---

**Destination of Leavers**

**Examples of careers of our physics graduates**

- Teaching
- Accountancy
- Computer game design
- Journalism
- Industrial research
- Finance
- Management Consultancy
- Medical Physics

**Examples of courses entered by graduates undertaking further study**

- PhD Fusion research
- PhD Astrophysics
- MSc Space Exploration and Development
- MSc Atmosphere, Ocean and Climate

---

*Data source: 2012/13 Destination of Leavers from Higher Education (DLHE) survey*
Course Opportunities

Undergraduate Ambassadors in Schools
During year three you can opt to gain firsthand experience of physics education through a mentoring scheme with physics teachers in local schools. If you take part in the Ambassador Scheme you will work with a class for half a day a week over one semester. You will have the opportunity to act as a positive role-model for young people interested in physics, as well as gaining experience in communicating the subject, and in organisational and interpersonal skills.

Study Abroad
Broaden your horizons with a year abroad. You can choose to spend your third year studying physics at one of our partner universities in France (Université de Nice-Sophia Antipolis) and Germany (Universität Siegen). We offer semester-long exchange schemes with universities in the USA (Arizona State), Canada (McMaster University), Australia (LaTrobe University, Melbourne) and Turkey (Fetih University, Istanbul). We are also happy to assist with exchange visits to additional Universities.

Alexandra Fogg, Physics with Space Science and Technology MPhys
I am an MPhys Physics with Space Science and Technology Student, and in my third year went on a semester exchange at McMaster University in Canada. I decided to go on exchange as I thought it would give me many new skills and independence, but it was so much more than that. Engaging in another culture never stops being exciting, and every day brought new experiences. Although I was very nervous in the run up to my time abroad, it was four of the best months of my life, and I will always look back on it fondly. The opportunity to travel and experience a different education style has given me irreplaceable skills which have amplified my employability. To anyone who isn’t sure whether they want to study abroad, you won’t regret it if you do!
Elliott Spender, Physics MPhys

I am a third year undergraduate physics student studying for my combined masters. In the first semester of my third year I had the opportunity to study at McMaster University in Ontario, Canada. Before I had even got a place at University I wanted to study abroad, travel is something I love doing and I applied as soon as I could.

Studying abroad is more than just academic, the social and cultural education is invaluable so I took the opportunity to experience as much as I could. During my time there I canoed across lakes and white water rivers, hiked over and under waterfalls, climbed icy mountains in the USA, went to local food and drink festivals and met people from all over the world, some of which I am still in regular contact with and planning to go travelling again soon.

I can safely say that studying abroad has been the most valuable and enjoyable experience of my life so far.

Ellie Hesketh, Physics with a Year in Industry BSc

I originally applied to the straight Physics BSc course but at the start of my 2nd year I realised a Year in Industry would be a really good opportunity for me as I didn’t have much science / engineering work experience. After securing a placement at Rolls-Royce PLC in Derby, I changed course to include my Year in Industry (which was only a case of filling out a very short form!).

My role at Rolls-Royce involved mostly website editing in a small ‘Knowledge Management’ team, but I also spent a month in the Nuclear sector.

I absolutely loved my placement year, and gained loads of practical industry skills that I feel will really help me in any future career I go into.

The Physics and Astronomy department here at Leicester really supported me during my year out, and they were only ever a phonecall away if I needed anything. The head of teaching also visited me at work to see how I was getting on and for me to show him what I had been working on.

I have had a fantastic time studying at Leicester. The department is very friendly and they have an ‘open-door’ policy where students can go and ask lecturers any questions about the course at any time. There is a wide variety of modules that you can take, so there is something for everyone!
Student Life

Campus
On our bustling compact campus it’s impossible to walk from one end to the other without bumping into someone you know along the way. The campus is a vibrant community, with all manner of places to meet, eat and drink, as well as study. We’re committed to providing you with high quality facilities and our £1bn campus development plan ensures all our resources meet the needs of modern and ambitious students.

Students’ Union
The Students’ Union is brimming with opportunities that will make your time at Leicester unforgettable. The spectacular Percy Gee building boasts superb facilities, from bookshops to bars and the fantastic live music venue, O₂ Academy Leicester. You are encouraged to get involved with the SU – there are over 200 student societies covering a huge range – sport, politics, media, performing arts and much, much more. It’s a great way of meeting new people, gaining skills or trying something completely different!

Accommodation
Our accommodation offers you a wide variety of choice. Whether you fancy self-catered or catered, en-suite or standard, there will be a package to suit you.

www.le.ac.uk/accommodation
Private accommodation is available through our lettings agency, SUlets.

www.sulets.com
Sports Facilities

You can enjoy a work out, take a swim or build up a sweat in a fitness class at our modern sports centres on campus or at Manor Road (next to our accommodation). You can also get involved with our sports clubs, which welcome members of all abilities. Keen competitors can also represent the University through Team Leicester, the hotly-contested Varsity matches and our thriving Intramural events.

www.le.ac.uk/sports

Library

The award-winning £32 million David Wilson Library is a light, airy, five-storey building providing state-of-the art facilities for all our students.

We invest over £6 million per year in the Library. Self-service loan and return, group study rooms, hundreds of PCs, netbook loans, wireless access throughout, a staffed Help Zone in the Library and online, 24/5 opening during term time, plus a bookshop and café create a first-class study environment.

There is access to a digital library of over 30,000 electronic journals and 350,000 eBooks – as well as over one million printed volumes. Our digital library can be accessed from anywhere you have an Internet connection.

Our Librarians provide detailed advice on finding and using information, and help you make the most of the resources available in the Library and on the web. You can also use our online guides to finding information for your research or coursework.

www.le.ac.uk/library

Attenborough Arts Centre

The Attenborough Arts Centre is the University’s own arts centre, offering a vibrant programme of events, music, spoken word, and exhibitions in its new gallery and performance spaces. Attenborough Arts offers you the chance to try something new, from a variety of arts courses to hula hoop dancing or creative writing. There are special discounts for students. Or if you just want a break from your studies you can enjoy free lunchtime music performances or have a drink at the café.

www.attenborougharts.com

City

Leicester is a lively and diverse city and the tenth largest in Britain. It has all the activities and facilities you would expect, with a friendly and safe atmosphere. The city centre is just a short walk from campus so you’ll never be far from the action.

Leicester’s diverse heritage is reflected in a dazzling array of festivals and cultural experiences including the largest Diwali celebrations outside India, the UK’s longest running Comedy Festival and the University’s hugely successful book festival – Literary Leicester.

Recent developments have led to the opening of the world class Curve Theatre and Phoenix Square Independent Arts Centre in the new Cultural Quarter, which complement Leicester’s existing array of cinemas, theatres, museums and galleries.

Leicester is a city of sporting excellence. Sports fans can enjoy Premier League football with Leicester City and watch top-class rugby at Welford Road, home of the mighty Leicester Tigers. The Leicester Riders are a formidable presence in the British Basketball League (BBL), and during the summer months, Leicestershire County cricket club compete in the county championship and T20 Blast competition.

The sparkling Highcross complex features 110,000 square metres of retail therapy, bars, cafés and restaurants. For those with independent tastes Leicester Lanes houses a variety of boutiques and specialist shops.

As you would expect from a true student city, there is a huge range of bars, clubs and live music venues that cater for all kinds of tastes. Food lovers are treated to a fantastic selection of restaurants, with specialities available from every corner of the world.
Applying to the Department of Physics and Astronomy

All applications must be made through the UCAS system. The UCAS codes for each of our courses are given below.

<table>
<thead>
<tr>
<th>COURSE TITLE</th>
<th>COURSE CODE</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc Physics</td>
<td>F300</td>
<td>3 years full-time</td>
</tr>
<tr>
<td>MPhys Physics</td>
<td>F303</td>
<td>4 years full-time</td>
</tr>
<tr>
<td>BSc Physics with Astrophysics</td>
<td>F3F5</td>
<td>3 years full-time</td>
</tr>
<tr>
<td>MPhys Physics with Astrophysics</td>
<td>F3FM</td>
<td>4 years full-time</td>
</tr>
<tr>
<td>BSc Physics with Nanotechnology</td>
<td>F391</td>
<td>3 years full-time</td>
</tr>
<tr>
<td>MPhys Physics with Nanotechnology</td>
<td>F390</td>
<td>4 years full-time</td>
</tr>
<tr>
<td>BSc Physics with Planetary Science</td>
<td>F3FN</td>
<td>3 years full-time</td>
</tr>
<tr>
<td>MPhys Physics with Planetary Science</td>
<td>F394</td>
<td>4 years full-time</td>
</tr>
<tr>
<td>BSc Physics with Space Science and Technology</td>
<td>F365</td>
<td>3 years full-time</td>
</tr>
<tr>
<td>MPhys Physics with Space Science and Technology</td>
<td>F366</td>
<td>4 years full-time</td>
</tr>
</tbody>
</table>
Entry Requirements

A-levels
We ask for three A-levels, including Physics and Mathematics, at grades AAB.

International Baccalaureate
34 points, typically including higher level Physics and Maths.

Other qualifications
We welcome applications from students with other qualifications (e.g. European baccalaureate, Foundation year, Scottish Highers, BTEC, etc.) or relevant professional experience. Please email physics@le.ac.uk with any questions.

Your application
We treat each application individually – we will look at your predicted grades and existing qualifications, your reference, and your personal statement.

Personal statement
We are looking for students who are well motivated and passionate about their subject. The personal statement is your chance to show that you fit the bill! Try to give a sense of your personality. Demonstrate your enthusiasm for Physics and Astronomy and tell us about your interests and achievements outside of the curriculum.

Offers and visit days
When we make you an offer (typically within a few weeks of receiving your application) we will invite you to visit the department on one of our UCAS Visit Days. During the visit you will have a chance to see our facilities and chat to current students and staff. You will also have the opportunity to view the campus and student accommodation.

Supporting you
We pride ourselves on our comprehensive student support, and this starts as soon as you make a commitment to come here. If you decide to make us your first choice institution you will be assigned a Link Tutor as a contact among the academic staff in the department and given access to some of our tailored on-line teaching resources.

Admission onto the course
If Leicester is your first choice
If you achieve your offer grades you will definitely have a place on the course.

If you narrowly miss your offer we will try to find you a place on the course and, every year, we are able to admit a few students in this position – typically those with the strongest grades in Physics and Mathematics, or those with additional relevant qualifications, for example, Further Maths or an EPQ.

If Leicester is your insurance choice
If you achieve your offer grades at Leicester, but fail to make the grades at your first choice institution you are guaranteed a place on the course.

Fees, scholarships and bursaries
For up to date information, please take a look at: www.le.ac.uk/study/fees