University of London: University College London

Gower Street, London WC1E 6BT
Main Sites: 1  Full Time Undergraduates: 9000
% of Undergraduates reading Science and Engineering: 40
Accommodation (% in Hall in 1st year): 100
Department of Physics & Astronomy  Academic Staff: 60
(Tel: 020 7679 7246)

Teaching Content & Philosophy: The courses aim to provide a flexible education both for those graduates planning careers in science, and those entering some other field, by studying in depth a subject which provides insights into the universe in which we live. All courses are built around the IOP core and most are available either as a 3 year BSc or a 4 year MSci.

Special Facilities/Resources: The Department’s extensive research interests in both physics and astronomy provide a wide range of topics for final year projects. Astronomy students use a superbly equipped and recently refurbished Observatory with two 24-inch and several smaller telescopes. Physics with Space Science students have access to the expertise of the Mullard Space Science Laboratory; Physics with Medical Physics students to the large UC Medical Physics group.

Special Features of Courses: Modular course unit system permits great flexibility; small-group tutorials; emphasis on project and group project work, particularly in the third and fourth years; astronomy field trip to professional observatory; fully integrated communications skills programme. Fourth year MSci options from a wide-ranging programme taught in collaboration with other in London Colleges.

Regulations on Transfer between Courses: Transfers are possible between all courses during the first year and between many courses during the second and third years.

Further Information: Professor Peter Storey (email: pjs@star.ucl.ac.uk)
Website: http://www.phys.ucl.ac.uk

BSc (3 year) and MSci (4 year) degree courses in:-
- Physics  •  Theoretical Physics  •  Applied Physics
- Astrophysics  •  Astronomy  •  Astronomy & Physics

And Physics combined with:-
- Medical Physics  •  Space Science

1st University to be founded in England after Oxford and Cambridge
1st to admit students regardless of race, class and religion
1st to admit women students on equal terms with men
For more information and contact details see the main UCL listing or www.phys.ucl.ac.uk/admissions
# Royal Holloway University of London

![University of London’s Country Campus](image)

## 4 year MSci Honours Degree

<table>
<thead>
<tr>
<th>Physics</th>
<th>Astrophysics</th>
<th>Theoretical Physics</th>
<th>Applied Physics</th>
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<tr>
<td>Physics</td>
<td>Astrophysics</td>
<td>Theoretical Physics</td>
<td>Physics with Particle Physics</td>
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</table>

## 3-year BSc Honours Degree

<table>
<thead>
<tr>
<th>Physics with Science Communication</th>
<th>Physics with Management</th>
<th>Physics with Music</th>
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<tbody>
<tr>
<td>Computer Science and Physics</td>
<td>Geology and Astrophysics</td>
<td>Mathematics and Physics</td>
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## 3-year BSc Combined Honours Degree

<table>
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<tr>
<th>Physics with Management</th>
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<tr>
<td>Geology and Astrophysics</td>
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## Postgraduate Courses

- MSc in Particle Physics
- Physics Research
- Low Temperature Physics
- Nanotechnology
- Research PhD or MPhil may be taken in the following fields:

<table>
<thead>
<tr>
<th>Particle Physics</th>
<th>Low Temperature Physics</th>
<th>Theoretical Physics</th>
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<tr>
<td>Vision and Signal Processing</td>
<td>Defects in Solids</td>
<td>Nanotechnology</td>
</tr>
</tbody>
</table>

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**Enquiries:**
- Undergraduate - Mrs Sheila Wilson (01784 443448)  physics@rhul.ac.uk
- Postgraduate - Dr Stuart Flockton (01784 443510)  s.flockton@rhul.ac.uk
- Department of Physics, Royal Holloway University of London, Surrey TW20 0EX
- Tel: 01784 443448  Fax: 01784 472794  World Wide Web: http://www.rhul.ac.uk/physics
University of London: Queen Mary

Mile End Road, London E1 4NS
Main Sites: 1 Full Time Undergraduates: 6500
% of Undergraduates reading Science and Engineering: 33
Accommodation (% in Hall in 1st year): 100

Department of Physics Academic Staff: 29
(Tel:020-7882 5030, Fax: 020-8981 9465)

Teaching Content & Philosophy: We have designed all our course programs to provide a sound foundation in the basic physics core as a launching point for the introduction of modern developments in astronomy and pure and applied physics, which make our courses both exciting and relevant to your future career. Special attention is paid to integrating into our courses the teaching of career-enhancing skills in IT and computing, writing, working in groups and verbal communication. In-built flexibility enables students to choose courses that suit their own developing interests from a range of options both within and outside the Physics Department.

Special Facilities/Resources: Well-equipped undergraduate laboratories with advanced computing facilities; new library adjacent to Physics Department. The Department's strong research base provides advanced facilities in astronomy, elementary particle physics, nanotechnology and solid state physics which are also used by undergraduates, especially for final-year projects where students work in one of our research groups.

Special Features of Courses: Our modular course-unit system, based on more than 30 years experience, allows students to tailor their own study programme within and even outside the programmes listed in this book. Manageable class sizes enable us to carry out small group teaching and to use flexible learning and teaching techniques, such as self study, problem solving and project work, in addition to lectures and tutorials. Most courses are assessed by a combination of course work and written examination. 4th year of the MSci draws from many options taught in collaboration with other Colleges of London University. A Science and Engineering Foundation Programme is available as a 3 + 1 year BSc course for students lacking appropriate Maths and Physics entry qualifications. We also offer more broadly based courses in physical and natural sciences and computer-based programmes in IT-Science and e-Science — see our website.

Regulations on Transfer between Courses: Transfers are possible between all course programmes during the first year and between most until commencement of the third year.

Further Information: Dr Mark Baxendale (Admissions Tutor)
e-mail: aurora@qmul.ac.uk
Website: http://www.ph.qmul.ac.uk
The Department of Physics and Astronomy at the University of Manchester includes the Jodrell Bank Observatory, and is one of the largest and most prestigious in the country, with a long tradition of excellence in teaching and research. We have obtained a maximum 24 points in the teaching subject review undertaken by the Government’s Quality Assurance Agency, and a top grade of 5A in the last research assessment exercise. In the latest Signposts to Employability Report, graduates from the University of Manchester are picked out as the most sought after in the country. Our students live and work in a vibrant city which has a wealth of cultural, social, leisure and sporting opportunities.

At Manchester we offer, to well-qualified students, opportunities to study in highly-flexible four-year programmes leading to the degree of MPhys(Hons), or three-year programmes leading to BSc(Hons). Some of our degree programmes allow the option of studying for part of the time in Europe, North America or Australia. Our world-class research groups provide opportunities for postgraduate degrees in almost every field of modern physics and astronomy.

The following degree programmes are available for entry in the year 2004.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Degree</th>
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<tbody>
<tr>
<td>Physics</td>
<td>BSc or MPhys</td>
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<tr>
<td>Physics with ...</td>
<td>BSc or MPhys</td>
</tr>
<tr>
<td>Astrophysics</td>
<td>BSc or MPhys</td>
</tr>
<tr>
<td>Business and Management</td>
<td>BSc or MPhys</td>
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<tr>
<td>Computing &amp; Information Technology</td>
<td>BSc or MPhys</td>
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<tr>
<td>Finance</td>
<td>BSc</td>
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<tr>
<td>Philosophy</td>
<td>BSc or MPhys</td>
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<tr>
<td>Study in Europe</td>
<td>MPhys</td>
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<tr>
<td>Technological Physics</td>
<td>BSc or MPhys</td>
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<tr>
<td>Theoretical Physics</td>
<td>BSc or MPhys</td>
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<tr>
<td>Joint Honors in...</td>
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<tr>
<td>Mathematics and Physics</td>
<td>BSc or MMath&amp;Phys</td>
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For more information about the Department and our teaching and research, see our web pages at

www.physics.man.ac.uk

For copies of prospectuses, contact either the Undergraduate or Postgraduate Admissions Secretary at

Department of Physics and Astronomy
The University of Manchester
Manchester M13 9PL
Telephone: 0161 275 4210

Email: ugphysics@man.ac.uk or pgphysics@man.ac.uk
University of London: Royal Holloway

Egham Hill, Egham, Surrey TW20 0EX
Main Sites: 1   Full Time Undergraduates: 5700
% of Undergraduates reading Science and Engineering: 45
Accommodation (% in Hall in 1st year): 100

Department of Physics   Academic Staff: 24
(Tel:01784-443448)

We were awarded 23 out of 24 in the 1998 QAA Review of Physics and Astronomy Teaching.

Teaching Content & Philosophy: Our aim is to provide a broad-based and flexible set of courses designed to convey the excitement of modern Physics and Astrophysics, leading to either BSc or MSci degrees. We also aim to prepare graduates for careers in scientific research, industry and a wide range of other jobs and careers.

Special Facilities/Resources: Modern laboratories are well equipped together with extensive computer facilities. An astronomical observatory and radio telescopes on the roof of the Department are available for student use. Project work benefits from access to the first class research groups in the Department.

Special Features of Courses: The modular course system permits flexibility with a wide range of optional subjects. Fourth-year MSci options include courses taught in collaboration with other London University Colleges. Varied teaching methods include lectures, student centred methods, tutorials, problem classes and projects. Generic skills are developed throughout the course programmes.

Regulations on Transfer between Courses: There is great flexibility to transfer between the various course programmes.

Further Information: Mrs Sheila Wilson
(01784-443448 or physics@rhul.ac.uk)
Website: http://www.rhul.ac.uk/physics

Loughborough University

Loughborough LE11 3TU
Main Sites: 1   Full Time Undergraduates: 8700
% of Undergraduates reading Science and Engineering: 50
Accommodation (% in Hall in 1st year): 100

Department of Physics   Academic Staff: 9
(Tel: 01509-223306)

We were awarded 23 out of 24 in the 1999 QAA Review of Physics and Astronomy Teaching.

Teaching Content & Philosophy: The Department s programmes aim to teach physics both as a fascinating subject worthy of study for its own sake, and as a training for employment in industry and academic research. To this end, most programmes give students the option (taken by 40% of students) of a year of paid employment in industry in the UK or abroad, and this is perhaps partly responsible for the high employment rate of our graduates. The MPhys Physics programme includes a 60 credit (50% of years credits) experimental or theoretical research project which may be performed at Loughborough or at an outside research institution or employer.

Special Facilities/Resources: Project work allows students to become involved in the Department s experimental and theoretical research, which is mainly focussed in quantum physics, solid-state physics and in applied physics. The University s library and computing facilities are particularly good as are the student accommodation, the sporting facilities and the attractive campus.

Special Features of Programmes: The Engineering Physics programme allows students to spend most of the final year in one of several engineering disciplines, making use of one of the strongest engineering faculties in the UK. The Sports Science and Physics programme may be particularly attractive to those considering a career in teaching. All programmes permit students to take a year in industry or study abroad. A new programme in Quantum Information and Computation extends students knowledge of physics into this exciting new area. A one-year programme in Science & Engineering Foundation Studies allows entry for applicants with non-standard qualifications.

Regulations on Transfer between Programmes: Most programmes include transfer possibilities at the end of the 1st year, depending on options chosen. Transfer between Physics and Engineering Physics is possible up to the end of the 2nd year.

Further Information: Professor K R Ziebeck
(01509-223300 or k.r.ziebeck@lboro.ac.uk)
Website: http://www.lboro.ac.uk/departments/ph
The University of Manchester

Manchester M13 9PL
Main Sites: 1 Full Time Undergraduates: 17700
% of Undergraduates reading Science and Engineering: 27
Accommodation (% in Hall in 1st year): 100
Department of Physics & Astronomy Academic Staff: 56
(Tel: 0161-275 4210)

The Department: The Department of Physics and Astronomy at The University of Manchester, which includes the Jodrell Bank Observatory, is one of the UK’s largest, with around 600 students. The Department has extensive and well-equipped teaching laboratories, a student mechanical workshop, a large library and full computing facilities for undergraduates, including email and internet access. We are a grade 5A research department and were awarded a maximum 24 points in the Teaching Subject Review.

Degree Programmes: Many of our different degrees are normally available either as 3-year BSc or 4-year MPhys programmes. For each honours school, the courses are the same for the first two years, with the students choosing between the 3 and 4-year programmes at the start of their third year. Transfer to Honours Physics from any of our other degree programmes can normally be made up to the end of the second year. A limited number of students may spend one year of their course studying at the University of California, or one semester studying at the University of Melbourne or Toronto, or at the Australian National University in Canberra. Some MPhys students may transfer to a special Enterprise Programme in the third year of their course.

Lecture Courses: The depth and breadth of the research at Manchester, which covers almost every field of modern physics and astronomy, is reflected in the wide range and the flexibility of our honours degree programmes. The core lectures in modern and classical physics are complemented by a wide range of physics and astronomy option courses and experimental projects. Additional options are available in other subject areas as diverse as modern languages, maths, chemistry, computing, electronics, geology, biophysics, history and philosophy of science, economics and music.

Tutorials: Our favourable staff-student ratio allows us to teach in small group tutorials, with first-year students having two tutors, one for physics and the other for mathematics. The tutorials are an essential part of the teaching experience at Manchester, giving students the opportunity to consult closely with the staff and to develop physical intuition together with problem solving and communication skills.

Departmental Student Societies: With so many students in the Department, there are plenty of opportunities for sporting and social events, organised for example by the football, hockey and cricket teams or by the student-run Physical and Musical Societies.

Further Information: To obtain a prospectus for our courses, write to Dr Fred Loebinger at the above address or telephone the admissions secretary on 0161-275 4210. We can also be reached by email at ugphysics@man.ac.uk, and there are more details about the department and our degree programmes on the World Wide Web at www.physics.man.ac.uk

University of Manchester Institute of Science and Technology

PO Box 88, Manchester M60 1QD
Main Sites: 1 Full Time Undergraduates: 4000
% of Undergraduates reading Science and Engineering: 75
Accommodation (% in Hall in 1st year): 100
Department of Physics Academic Staff: 30
(Tel: 0161-200 3939)

Teaching Content & Philosophy: Our courses give a broad foundation in pure physics while the laboratory projects provide the experimental skills required of an all-round physicist. The pure or applied sides of the course can be selected by options in the second and third years. Each course may be taken as a three-year programme to BSc(Hons) or a four-year programme to MPhys(Hons) designed especially for those continuing in research or wanting to work in Europe.

Special Facilities/Resources: Some third and fourth year projects are carried out in departmental research laboratories, for example the atmospheric physics, laser and plasma physics projects. We have links with Toulouse and Berlin Universities for our students who spend a year abroad.

Special Features of Courses: Our traditional emphasis on experimental physics is now strengthened with the addition of theoretical nuclear physics and astrophysics following the recent expansion of the department into these research areas. Electronics, computer programming, applications of computers, and information technology are all covered. Mathematical physics is available as a joint course with the Mathematics Department (apply to Physics). We now have new courses in Physics with Industrial Placement and Physics with Enterprise. For the past two years we have won the UK universities students rocket competition; and we now incorporate such activities into the laboratory course.

Regulations on Transfer between our Courses: Transfer between our physics courses is possible until the start of the second year.

Further Information: Admissions Tutor
National University of Ireland, Cork

Western Road, Cork, Ireland

Main Sites: 1    Full Time Undergraduates: 9000
% of Undergraduates reading Science and Engineering: 25
Accommodation (% in Hall in 1st year): 5

Department of Physics    Academic Staff: 12
(Tel: 353-214902 468. Fax: 353-214276 949)

Teaching Content & Philosophy: Courses are taught through lectures and laboratory classes supplemented by tutorials, problem-solving sessions and seminars. Laboratory classes vary from classic experiments to open-ended research projects. Fourth year students do a 3-month research project and write a minor thesis.

Special Facilities/Resources: Optoelectronics and nonlinear optics laboratory including extensive ultrafast diagnostics, pulsed and CW Ti : sapphire lasers. A laser spectroscopy laboratory based on the tunable vacuum ultraviolet laser, has recently been installed. Major research groups: optoelectronics, laser spectroscopy, nuclear physics, cosmic ray astrophysics, general relativity and gravitation, solid state physics, observational astronomy.

Special Features of Courses: A strong emphasis on fundamental physics at the beginning of the BSc degree programme ensures a secure foundation for modern physics later on. Physics majors may choose from a wide range of subsidiary subjects including pure or applied mathematics and computer science.

Regulations on Transfer between Courses: Not applicable.

Further Information:  Professor Stephen Fahy, Head of Department

National University of Ireland, Maynooth

Maynooth, Co. Kildare, Ireland

Main Sites: 1    Full Time Undergraduates: 4600
% of Undergraduates reading Science and Engineering: 25
Accommodation (% in Hall in 1st year): 10

Department of Experimental Physics    Academic Staff: 8
(Tel: 353-1-708 3641)

Teaching Content & Philosophy: Lectures, laboratory classes, problem solving tutorials. Students are introduced to a broad range of topics, including astronomy. Honours class sizes are small, and individual and group projects are offered to students in their final year. Computational Physics and interfacing to PC s are emphasised in the curriculum.

Special Facilities/Resources: The Department is well stocked with a broad range of modern equipment in new and purpose-built undergraduate and postgraduate laboratories, opened in the summer of 1998. Honours students at 3rd and 4th level have their own group rooms with full computer and study facilities.

Special Features of Courses: The programme offers Single Honours in Experimental Physics and in Physics with Astrophysics as well as combined honours in Experimental and Mathematical Physics (or in combination with Biology, Chemistry, Computer Science and Mathematics). The Department has a policy of special emphasis on individual attention at all levels to help the student attain his/her full potential.

Regulations on Transfer between Courses: None

Further Information:  Professor J Anthony Murphy
University of Newcastle

The University, Newcastle Upon Tyne, NE1 7RU
Main Sites: 1    Full Time Undergraduates: 9534
% of Undergraduates reading Science and Engineering: 34
Accommodation (% in Hall in 1st year): 95
Department of Physics    Academic Staff: 16
                          (Tel: 0191-222 6000)

Teaching Content & Philosophy: A balance is struck between the formal teaching/assessment approach and project work of various types such that students with differing combinations of skills and abilities are able to successfully complete our courses. Physics BSc and MPhys; Theoretical Physics BSc and MPhys; Astronomy and Astrophysics BSc and MPhys; Physics with Medical Applications BSc and MPhys, Chemical Physics BSc and MPhys. All university courses are modularised.

Special Facilities/Resources: There is a large purpose-built building, which, with a well equipped observatory, is used for undergraduate teaching. Additionally there are teaching hospital facilities for physics with medical applications course.

Special Features of Courses: The wide range of courses available within one department allows optional subjects in each final year to be chosen from a large range of topics. The link with the local hospitals is important for the Medical Physics degree. Personal transferable skills and problem solving skills are developed during the courses. Computing skills are taught in each year of the course. Some of the final year projects are undertaken in the research laboratories and some in the local hospitals. A Foundation Year is available.

Two courses, Science and the Information Society and Physics in the Modern World will appeal to students who want broadly based programmes.

Regulations on Transfer between Courses: All honours courses are offered to students with an adequate performance in first year. Transfer between degrees is normally possible up to the start of the second year.

Further Information: Dr R. J. Turton, Admissions Tutor
The Nottingham Trent University

Clifton, Nottingham NG11 8NS

Main Sites: 3 Full Time Undergraduates: 11 000
% of Undergraduates reading Science and Engineering: 25
Accommodation (% in Hall in 1st year): 95

Physics Division Academic Staff: 14
(Tel: 0115-8486656)

Teaching Content & Philosophy: With the exception of Mathematical Physics, all of the BSc(Hons)/MSci courses share a common first year: transfer between them is therefore possible at any point prior to the start of the second year. Great emphasis is placed on developing laboratory and problem-solving skills, as well as more general transferable skills, providing students with an ideal training for careers in both industry and teaching.

Special Facilities/Resources: The Physics facilities are housed in modern, purpose-built accommodation and consist of well-equipped laboratories with specialist provision in materials evaluation, instrumentation, radioisotope analysis, thin film and surface physics.

Special Features of Courses: BSc(Hons) and MSci Physics have themes in environmental physics, materials evaluation, and instrumentation. Physics in Europe entails a year spent on work placement in Europe, outside of the U.K. Physics with Astrophysics, Mathematical Physics, Physics with Biomedical Physics, and Computational Physics enable the student to develop a clear specialism to their physics studies. The University Foundation Degree in Physics can be taken as a qualification in its own right, or as an alternative route to the second year of any of the BSc(Hons) programmes. Technological Physics offers a degree route with a lower mathematical content. The department has very good links with local industry which play an important role in generating projects offered on the courses. Physics at Nottingham Trent was awarded a maximum score of 24 points in the latest External Subject Review conducted by the Quality Assurance Agency.

Regulations on Transfer between Courses: Transfer between the various Physics courses is possible in their early stages.

Further Information: Professor Glen McHale (0115-8483383)
Internet: http://science.ntu.ac.uk/chph/Physics/

School of Physics & Astronomy
University of Nottingham

The University of Nottingham is academically one of the top-rated institutions in the country, and is also one of the most popular. The School of Physics and Astronomy is located on the University’s beautiful main campus. This parkland setting provides all the facilities you will need within a short walk. However, you need not worry about being stuck on a campus miles from anywhere: the centre of Nottingham, with its nationally renowned clubs, shops, etc, is less than two miles away.

The School of Physics & Astronomy is committed to excellence in teaching and a broad range of research. This breadth of skills allows us to offer BSc (3 year) and/or MSci (4 year) degrees in:

- Physics
- Physics with Astronomy
- Physics with Theoretical Physics
- Physics with Theoretical Astrophysics
- Physics with Medical Physics
- Physics with European Language
- Mathematical Physics
- Chemistry and Molecular Physics
- Physics and Philosophy

As a complement to the main syllabus of physics and its advanced applications, you can count non-physics components such as music or language modules toward your degree. Courses contain extensive project work, including consultancy work in industry, and we offer opportunities for study abroad, such as project work in China and placements in Europe and North America.

For more details, contact:
The Admissions Secretary
School of Physics & Astronomy
University of Nottingham, Nottingham, NG7 2RD
Phone: 0115 951 5165
E-mail: physics-admissions@nottingham.ac.uk
Website: http://www.nottingham.ac.uk/physics/
The University of Nottingham

University Park, Nottingham NG7 2RD
Main Sites: 3 Full Time Undergraduates: 12000
% of Undergraduates reading Science and Engineering: 37
Accommodation (% in Hall in 1st year): 100
School of Physics and Astronomy Academic Staff: 35
(Tel: 0115 951 5165)

Teaching Content & Philosophy: All University courses are modularised, allowing students to develop their own interests around prescribed core physics modules. Lectures are supplemented by course work, laboratory experiments, research projects, and small tutorial groups, which all form part of continuous assessment. Synoptic modules, which bring together the concepts taught in the core physics elements, form an important part of the course. They are also designed to enhance the students’ transferable skills.

Special Facilities/Resources: Students are usually guaranteed a place in university-regulated accommodation in their first year. In the last ten years, over £11 million from Government sources has been invested to support research programmes in astronomy, magnetic resonance imaging, semiconductor research, superconductivity, nanotechnology, etc. Advanced courses are offered to undergraduates in these and other areas of expertise.

Special Features of Courses: Introductory courses are taught in computing and modern electronics, leading to more advanced options in C programming. Computerised control of laboratory experiments is taught using LabVIEW, while MATLAB and MAPLE are used for solving mathematical problems. Options are available from most faculties, including modules in languages, management skills, music, etc. Various opportunities exist for study overseas as part of the courses offered, including a year in Europe in the Physics with European Language degree, a year at the University of Toronto or a term spent on a physics project in China. Communications and problem solving skills are actively developed in all years. Original research plays an important role in all courses: in the final year of the MSci courses, for example, students apply the skills that they have acquired by undertaking a major research project as a professional consultant in either industry or academia.

Regulations on Transfer between Courses: Transfer between courses is straightforward as long as appropriate modules have been taken.

Further Information: Professor M R Merrifield  
email: physics-admissions@nottingham.ac.uk  
Website: http://www.nottingham.ac.uk/physics/

The Open University

Walton Hall, Milton Keynes MK7 6AA
Main Sites: 1 (plus 13 regional offices) Full Time Undergraduates: See below
% of Undergraduates reading Science and Engineering: 30
Accommodation (% in Hall in 1st year): See below
Department of Physics and Astronomy Academic Staff: 30 (+ hundreds of part-time tutors)
(Tel: 01908 653229)

Teaching Content & Philosophy: The Open University has no formal academic entrance requirements. By studying appropriate combinations of course modules, students can obtain BSc Natural Sciences with Physics or BSc Physical Science. Students can also obtain an honours BSc by combining modules from different subject areas, to match their interests or career objectives. Possibilities include combining physics with computing, electronics, other sciences or a language.

Special Facilities/Resources: The University has an open access policy which offers enhanced support and assistance to less well-qualified students. Advice on academic and personal matters is available and special facilities and back-up are provided for disabled students. Students can access our main computer system and various internet facilities.

Special Features of Courses: An honours degree requires at least 360 CATS points (typically 10-12 modules). Study is generally undertaken on a part-time basis and typically lasts for 6 years. Teaching is conducted through a very wide range of media, including student-active texts, television programmes, video cassettes, CD-ROMs and DVDs, and the internet. Although students study mainly at home, support and tutorials are provided by local tutors and some modules include a residential school based on experimental work and projects, as well as tutorials and lectures.

Regulations on Transfer between Courses: Students are free to choose any combination of course modules, but named degrees require completion of specific combinations. Credit transfer from other institutions is possible.

General Information: All Open University undergraduates are regarded as part-time students: there are about 140 000. Accommodation is not provided as Open University undergraduates study at home.

Further Information: Dr Stuart Freake, Director of Teaching  
email: s.m.freake@open.ac.uk
Oxford University

Clarendon Laboratory, Parks Road, Oxford OX1 3PU
Main Sites: 1    Full Time Undergraduates: 11000
% of Undergraduates reading Science and Engineering: 42
Accommodation (% in Hall in 1st year): 100

Department of Physics    Academic Staff: 75
(Tel: 01865-272227)

Teaching Content & Philosophy: The Department places a strong emphasis on the provision of a broad and sound training in the fundamentals of physics. Equal importance is attached to developing physical understanding and analytical skills. Our courses are regularly reviewed and modernised to remain in touch with current research frontiers. A particular feature of the course is the provision of regular tutorials in the Colleges, usually given by a senior staff member to one or two undergraduates. Lectures and practical work are organised by the Department.

Special Facilities/Resources: The Department offers new teaching laboratories which include substantial computing facilities. Extensive library resources exist both within the University and in the Colleges. There are opportunities for work in the vacation with research groups.

Special Features of Courses: Both the three- and four-year courses provide an excellent training in physics. The four-year course offers more advanced subjects in the final year, at a level appropriate to those intending to do research. Project work with a research group gives experience of solving real problems, and may result in publication in a scientific journal. An option involving language training is available. The Physics and Philosophy course covers the more theoretically based aspects of physics.

Regulations on Transfer between Courses: It is possible to change to Earth Sciences or Materials Science at the end of the first year. In suitable cases, transfer may be permitted to the degree of Physics and Philosophy. Other transfers are decided individually.

Further Information: The Sub-Faculty Office, Clarendon Laboratory
Website: http://www.physics.ox.ac.uk/

University of Paisley

High Street, Paisley, Scotland PA1 2BE
Main Sites: 2    Full Time Undergraduates: 5667
% of Undergraduates reading Science and Engineering: 33
Accommodation (% in Hall in 1st year): 20

Division of Electronic Engineering & Physics
Academic Staff: 24
(Tel: 0141-848 3601)

Teaching Content & Philosophy: Lectures, laboratory classes, computer based learning, tutorials. First year teaching includes: study skills and small group tutorials; course covers full range of physics, and its application; later years include seminars and project based work.

Special Facilities/Resources: The Department has a wide range of equipment for use in laboratories and projects. There is also emphasis on use and applications of microcomputers. UNIX workstations can be used in project work. Well equipped Class 100 clean room. Scanning electron microscope, scanning tunnelling microscope, X-ray diffractometer, laser and low temperature facilities. Microcontroller instrumentation development laboratory, networked multimedia development laboratories, video-editing suite, advanced video conferencing facilities. Centre for Thin Films research. Computer controlled telescope and CCD imaging camera.

Special Features of Courses: Flexibility of choice between School of Science degrees. Courses include remote sensing, astrophysics, particle physics, semiconductor technology, optoelectronics and medical technologies. Special emphasis on final year project. Salaried industrial placement option. 5-year MSci course in Technological Physics with salaried placement in Research and Development. Exciting new collaborations on medical technologies with hospitals in Glasgow and West of Scotland.

Regulations on Transfer between Courses: Flexible system for first two years where courses are common to science degree scheme.

Further Information: Professor R Chapman
THE QUEEN’S UNIVERSITY OF BELFAST

Department of Pure and Applied Physics

Undergraduate Studies

3 YEARS BSc Honours Degree Courses:
PHYSICS [F300]
PHYSICS with ASTROPHYSICS [F3F5]
COMPUTER SCIENCE with PHYSICS [GF53]
APPLIED MATHEMATICS and PHYSICS [GF13]

4 YEAR BSc (Hons) [F308]/5 YEAR MSci (Hons) [F309] degree courses in PHYSICS with EXTENDED STUDIES in EUROPE

These courses are similar to the corresponding courses in Physics but with a language training component in French, German or Spanish. One year is spent abroad at a European University.

4 YEAR MSci Honours Degree Courses:
PHYSICS [F303]
PHYSICS with ASTROPHYSICS [F3FN]
APPLIED MATHEMATICS and PHYSICS [GF1H]

Postgraduate Studies

(a) 1 YEAR full time/2 YEARS part time MSc/Diploma course in Materials Science
(b) 1 YEAR full time/2 YEARS part time MSc/Diploma course in Optoelectronics and Optical Information Processing
(c) 3 YEAR Research in Physics leading to PhD degree

Main fields of research:
1 Atomic and molecular physics
2 Plasma and laser interaction physics
3 Astronomy and planetary science
4 Condensed matter physics and materials science
5 Atomistic simulation

Further information from:
Dr Andrew Whitaker, Department of Pure and Applied Physics, The Queen’s University of Belfast,
BELFAST BT7 1NN
The Queen’s University of Belfast

Belfast BT7 1NN
Main Sites: 1  Full Time Undergraduates: 7200
% of Undergraduates reading Science and Engineering: 38
Accommodation (% in Hall in 1st year): 70

Department of Pure and Applied Physics
Academic Staff: 30
(Tel: 02890 245133 Ext 3508)

Teaching Content & Philosophy: Students may choose from a range of degree courses designed to meet the skills and scholarship needs, and to facilitate the career aspirations of most physics graduates. Our courses also exploit the academic strengths and skills of staff across the breadth of the School of Maths and Physics. Computing and transferable skills are taught as integral components of all physics courses and are also available as specialist options. Teaching methods comprise lectures, laboratories, tutorials and problem/analysis classes; these initially provide a broad introduction to fundamental aspects of Physics and subsequently, in final years, facilitate a critical and in-depth study of many of its modern developments.

Special Facilities/Resources: Extensive PC and mainframe computing facilities are available to students. The Department also manages an astronomical observatory for use in undergraduate teaching. Where possible, final year students are assigned to join one of our active research groups so as to perfect their laboratory skills and taste the flavour of postgraduate work. For relaxation, students have a choice of several superb local sporting facilities, or they may indulge themselves in the vibrant university environment of theatres, pubs and bistros. 70% of first year students (nearly all the students from outside Belfast) are accommodated in Hall.

Special Features of Courses: Class sizes tend to be small, and special student needs are therefore more easily identified and readily catered for. In addition to defined core material, specialist options are available which reflect the extensive research (grade 5) interests of the Department.

Regulations on Transfer between Courses: The modular structure allows students to leave decisions on degree options until the end of year one. In-course transfer between BSc and MSci degree courses is possible, if other attendant conditions are met. Entry is to the Faculty of Science, and is into level 1 for a 3 year honours BSc or a 4 year honours MSci degree. An introductory (level 0) year is available to selected students who don’t achieve appropriate A-level grades for direct entry into level 1.

Further Information: Professor Andrew Whitaker (email: a.whitaker@qub.ac.uk) or website

The University of Reading

PO Box 220, Whiteknights, Reading RG6 6AF
Main Sites: 1  Full Time Undergraduates: 8395
% of Undergraduates reading Science and Engineering: 39
Accommodation (% in Hall in 1st year): 100

Department of Physics Academic Staff: 16
(Tel:0118 3788543)

Teaching Content & Philosophy:
- We are proud to have been awarded 24/24 by The Quality Assurance Agency for excellence in physics teaching.
- We provide a flexible course structure with a wide range of options to ensure you enjoy excellent prospects in an extensive range of careers
- We are a friendly department where your personal tutor will be on hand to monitor and discuss your progress and option choices
- We operate a range of teaching strategies — from lectures to small group workshops to ensure that our students make the best progress

Special Facilities/Resources:
- Reading has a beautiful parkland campus where all first year students are guaranteed hall accommodation
- The campus benefits from a lively social scene and excellent sporting facilities even though only 22 minutes by train from London’s shops, theatres and nightlife
- All our excellent teaching, laboratory and computing facilities are housed in our own specialised building
- You will be offered the opportunity to join one of our research teams working at the forefront of Physics as part of your Final Year Project

Special Features of Courses:
- Commercial and industrial scholarships worth up to £1200 with paid vacation employment are available
- Unique courses available:- Physics and Meteorology and Physics and The Universe
- Professional skills training increases your employability whatever your career aspirations
- Pre-term revision course is available on request
- Students have the option to spend a year abroad
- Foundation course is available for students without Physics or Maths A-level or equivalent

Regulations on Transfer between Courses:
- Transfer is possible between 3 year BSc and 4 year MPhys courses at end of 1st year
- Transfer is possible between a range of courses until end of 1st year

Further Information: physicsadmissions@reading.ac.uk
Website: http://www.reading.ac.uk/physics/
• Study year abroad option (free language courses)
• Guaranteed hall places for all applicants
• Professional employment-focused skills training
• Scholarships - up to £1500 p.a. for high flyers
• Work experience with industry leading companies
• Virtually 100% graduate employment rate
• Unique, challenging, highly regarded courses

PHYSICS and The University of Reading
physics@reading.ac.uk

TEMPTED?

Apply without doubt to The Admissions Tutor,
JJ Thomson Physical Laboratory, The University of Reading RG6 6AF
telephone: 0118 3788543 fax: 0118 975 0203 email: physicsadmissions@reading.ac.uk

www.reading.ac.uk/physics/
The Robert Gordon University, Aberdeen

Schoolhill, Aberdeen AB10 1FR
Main Sites: 6 Full Time Undergraduates: 7050
% of Undergraduates reading Science and Engineering: 16
Accommodation (% in Hall in 1st year): 40
School of Engineering Academic Staff: 45
(Tel: 01224 262400)

Teaching Content & Philosophy: The Faculty of Design and Technology at RGU has introduced a new programme of highly flexible degree courses. The Combined Studies Modular Scheme allows students to select a wide variety of course combinations, whilst ensuring coherence and progression in each programme of study. Students can develop their own individual programme of study that can be adjusted each year in light of changing skills and interests. Upon completion of the Combined Studies Modular Scheme, graduates are awarded honours degrees that name their main subjects or subject combinations, i.e. BSc (Hons) Physics & Mechanical Engineering, Physics & Electronics and Physics with Computing. This allows the student to select their chosen area of expertise from the wide array of courses already on offer at the Faculty of Design and Technology.

Special Facilities/Resources: Instrumentation development laboratory (LabView), atomic force microscopy, electron microscopy, NDT, Materials testing & Analysis laboratory, vibration and acoustic monitoring, Control laboratory, Artificial Intelligence, Optoelectronics centre (laser sensor development), instrumental analytical laboratory.

Special Features of Courses: The Combined Studies Modular Scheme is highly flexible in terms of the subjects available, i.e. Computing, Electronics, Mechanical engineering, and Physics. Coupled with the degree of specialisation chosen by the individual, it provides a rational, flexibly structured and coherent course of study in physics relevant to the needs of employers. At honours level the programme offers an individual Honours Project in topics of physics relevant to the modules taken throughout the course, i.e. solid-state devices, NDT & Evaluation, computing, laser sensors, advanced instrumentation and surface physics.

Regulations on Transfer between Courses: Students can transfer to one of the other courses in the Faculty of Design and Technology at the end of Year 1. Advanced entry is possible for suitably qualified candidates.

Further Information: Dr Ali Siddiqui (e-mail: a.siddiqui@rgu.ac.uk)
University of St Andrews
North Haugh, St Andrews, Fife KY16 9SS

Main Sites: 2 Full Time Undergraduates: 5552
% of Undergraduates reading Science and Engineering: 34
Accommodation (% in Hall in 1st year): 100

School of Physics and Astronomy Academic Staff: 28
(Tel: 01334-463103)

This modern School of Physics and Astronomy is part of the ancient and well-respected University of St Andrews, which is Scotland’s first university. Choice and flexibility are features of the BSc and MPhys honours degree programme. Well qualified entrants can choose to enter in year-two and complete an honours Bsc degree in three years or an MPhys degree in four. Those entering directly from Highers, those wishing to take advantage of the traditional broad Scottish first year, and those with less good Advanced Highers or A-level qualifications may enter at year-one.

We aim to stimulate our students' interest in their subjects and to develop a thorough understanding of physics (and where appropriate astronomy). This is aided by relatively small class sizes, and weekly tutorials which from year-two onwards consist of only three or four students with a member of academic staff. Lectures develop both the pure and applied aspects of physics, building up from the introductory lectures in year-one to the modules in the final years which prepare students to appreciate the research literature. Appropriate laboratory work illuminates and extends the understanding of topics covered in lectures, as well as developing important practical skills. Problem solving and communication skills are actively developed.

The most recent teaching quality assessment exercise rated our physics teaching as excellent, the highest category. The same report commented on the outstanding environment in which we teach. The University observatory has, amongst other telescopes, the largest operational optical telescope in the British Isles. This is used in student astrophysics projects, and all students can make use of the observatory. There is substantial provision of networked computers for student use on site, and the teaching laboratories are well equipped.

St Andrews is a University town of only 16,000 people, located in a beautiful location on the Fife coast. Students coming from across the UK and further afield form a major part of the community, and student-organised activities abound. Students are admitted to the faculty of science, and by appropriate choice of modules they can postpone their choice of degree subject (within or outside this School) until the start of the year-three.

With 28 teaching staff the School is large enough to provide comprehensive coverage at undergraduate level. With another 70 research staff and students it is lively enough to produce internationally recognised (Grade 5 in RAE) research in astronomy and astrophysics, laser physics and technology, optoelectronics, magnetism and superconductivity, terahertz technologies and quantum theory. Yet the School remains small enough that students and staff can interact closely. Students comment on the enthusiastic and student-friendly nature of the teaching-staff. The final year projects carried out individually by all students are normally undertaken with one of the research groups under the supervision of a member of the teaching staff. The active researchers bring their particular expertise to their teaching, with specialist degrees being offered in the areas of astrophysics, photonics and theoretical physics.

Exchange links allow the third year to be spent at certain universities in Canada or the USA.

Further Information: Dr Bruce Sinclair
(email: physics@st-andrews.ac.uk)
STUDY PHYSICS at Salford

BSc and MPhys Degrees
Honours in Physics.
Honours in Physics with Space Technology.
Honours in Physics with Aviation Studies.
Honours in Physics with Acoustics.
Honours in Physics with Additional Studies in North America.
Honours in Physics with Additional Studies in Europe.
Honours in Physics with a Foundation Year.
Honours in Pure & Applied Physics.
Honours in Physics with a Foreign Language.

It is the technologically orientated physicist who competes most effectively for leadership roles in modern industry. Study Physics at Salford and this puts you into one of the most popular Physics departments in the UK. It is not only a high technology area but one which is dedicated to education for capability. Our undergraduate BSc degree programmes may be taken either as three-year programmes or as four-year integrated programmes with one year of professional practice based in industry, research or commerce. All undergraduate programmes provide a significant amount of information technology and computing and a final-year project often associated with the University’s physics research interests. The MPhys degrees provide a more advanced fourth year with a substantial open-ended research project. There is also an option of studying for a year in North America.

The unique Physics with Aviation Studies degree is a new programme which will cater for those with an interest in flying. The Foundation Year provides access to a high quality Physics degree programme for those who, for one reason or another, lack the conventional A-levels. Moreover, our Pure & Applied Physics degree is specifically designed for those that have underachieved in mathematics but who still wish to take a standard length physics degree programme. A broad range of additional maths support is also available for widening participation to those with only AS level mathematics.

MSc degrees
Master of Enterprise (Technology)
Some financial support for students is available.

Vacuum Engineering and Applications (one year, full-time)
An EPSRC Masters Training Programme with financial support for studentships.

Research Areas

For further information please contact: Dr D Fletcher, Joule Physics Laboratory, School of Computing, Science and Engineering University of Salford, Salford, M5 4WT.
Telephone: 0161 295 5162 or 3816
Visit our website http://www.salford.ac.uk/physics.homepage.html
University of Salford

Joule Physics Laboratory, Salford, M5 4WT
Main Sites: 1 Full Time Undergraduates: 11527
% of Undergraduates reading Science and Engineering: 29
Accommodation (% in Hall in 1st year): 95
Joule Physics Laboratory Academic Staff: 11
(Tel: 0161-295 5162)

Teaching Content & Philosophy: The objective of the Joule Physics Laboratory, which is within the School of Sciences, is to offer degree programmes that combine the excitement and rigour of fundamental physics with the particular skills needed by the teaching, business and industrial sectors. We have a long tradition of links with Industry through research collaborations and through the organisation of industrial years out - for those students choosing this option. Our excellent outside contacts are reflected in the fine record for graduate employment. It is also reflected in our ability to give Joule Scholarships to many applicants.

Other information: The Laboratory scored 23 out of 24 points in QAA and its research has a RAE grade of 4. Salford is in the top 10 group of universities for graduates obtaining employment.

North America: The option is available to spend the third year of the MPhys degree at one of the several North American Universities in the USA and Canada.

Special Facilities/Resources: We have a well equipped PC laboratory where programming and use of software packages are taught and where physics and mathematics understanding are backed up by means of computer-aided learning packages, many developed in the Joule Physics Laboratory. We are also commended for being able to offer extensive research projects in the final year involving the latest research facilities and, where appropriate, relevant to the specialised courses being taken. A special feature is our Space Technology Laboratory, led by the well-known Steve Bennett who is planning a satellite launch in the year 2003/4.

Special Features of Courses: We teach all BSc and MPhys programmes in a modular format. All courses can be integrated with professional practice that is separately certificated. There is a major, open-ended project in the final year with specialisation in optics, laser and space technology, computational physics, magnetism, medical physics, acoustics, environmental physics or other areas if you have a special request.

Regulations on Transfer between Courses: For Physics students, choice of modules is from a menu of options. Students can transfer to other options at various stages. A change between MPhys and BSc courses of study is also possible.

Further Information: Dr D Fletcher
Website: http://www.salford.ac.uk

Sheffield Hallam University

Howard Street, Sheffield S1 1WB
Main Sites: 2 Full Time Undergraduates: 13500
% of Undergraduates reading Science and Engineering: 33
Accommodation (% in Hall in 1st year): 30
Division of Applied Physics Academic Staff: 17
(Tel: 0114-225 3087)

Teaching Content & Philosophy: Our teaching employs a variety of activities and styles, emphasises graduate skills including communication, group working, problem solving, practical and project work, and is well supported by staff and facilities.

Special Facilities/Resources: Sheffield is an ideal and affordable place to live and study. It has excellent nightlife, outstanding sports and cultural facilities, and the Peak District National Park is nearby. The University offers a modern city centre campus adjacent to rail and bus stations with the benefits of a new Library and Learning Centre. Physics has new laboratories and, alongside core teaching facilities, has specialised laboratories for microprocessor-based instrumentation, advanced optics, computer modelling, semiconductor processing, Mssbauer spectroscopy and, in conjunction with the Materials Research Institute, Electron Microscopy, X-Ray Diffraction and Surface Analysis.

Special Features of Courses: BSc (Hons) Instrumentation and Measurement and BSc (Hons) Technological Physics are both one year top-up courses. Instrumentation and Measurement specialises in concepts and applications of physical measurement: applicants are typically holders of DUT in Mesures Physiques. Technological Physics offers a wide range of topics from physical measurement, mathematical modelling and materials physics: applicants typically hold an appropriate HND or have successfully completed 2 years of degree level study of Physics.

Further Information: Dr Roger New
Website: http://www.shu.ac.uk/schools/sci
Think **Physics.** Think **Astronomy.**

**Think Sheffield** ... because at Sheffield you will find

- A large civic university with a long and continuing tradition of academic excellence
- A friendly department committed to the highest standards in teaching and student care
- A modular course structure offering a wide range of interesting options, giving flexibility to your studies
- A flourishing research programme in solid state, theoretical, molecular and high energy physics and in astronomy
- A lively student-run Physics Society offering a range of events both physics-related and social
- An attractive university campus, close to the city centre on one hand, and the hills and heather of the Peak District on the other
- The guarantee of university accommodation for all first-year students firmly accepting the offer of a place
- A bustling city with a reputation for friendliness and with world class sporting, cultural and leisure facilities

- And a wide choice of 3-year BSc and 4-year MPhys Honours Degree courses.
  - Physics
  - Physics with study in Europe (MPhys only)
  - Theoretical Physics
  - Physics and Astronomy
  - Physics with Medical Physics
  - Physics with Computer Science
  - Physics with Enterprise Management
  - Mathematics and Astronomy
  - Physics and Philosophy (BSc only)
  - Astronomy and Philosophy (BSc only)
  - Chemical Physics

**Want to know more?**

For a copy of a colour booklet giving full details of all our courses, please contact Dr Mark Fox, the Undergraduate Admissions Tutor.

**Department of Physics and Astronomy,**
**The University of Sheffield, Sheffield S3 7RH**

Telephone: 0114 222 4362. E-mail: Physics.UCAS@Sheffield.ac.uk
Internet: http://www.shef.ac.uk/~phys
University of Sheffield

Hounsfield Road, Sheffield S3 7RH
Main Sites: 2 Full Time Undergraduates: 15131
% of Undergraduates reading Science and Engineering: 39
Accommodation (% in Hall in 1st year): 47

Department of Physics & Astronomy Academic Staff: 25
(Tel: 0114-222 4362 email: physics.ucas@sheffield.ac.uk)

Teaching Content & Philosophy: Whilst the principal mode of teaching is
the traditional lecture, the Sheffield course also emphasises small-group
work in weekly tutorials, continuously assessed laboratory work,
independent study and extended experimental, theoretical or computational
projects.

Special Facilities/Resources: The Department has strong research
groups in astronomy, particle physics and particle astrophysics, and
condensed-matter physics including polymers, thin films and magnetic
materials, together with the appropriate support facilities such as
workshops, a helium liquefier, telescopes and other astronomical
instrumentation, a 14-MeV neutron beam, and interdepartmental Centres
for Molecular Materials and Magnetic Materials. These feed into the
undergraduate course via project work and specialised options.

Special Features of Courses: A wide range of option courses including
astronomy, computing science and medical physics, plus the opportunity to
spend year 3 of an MPhys course in Europe, North America or, for
astronomy students, at the astronomical observatory on La Palma in the
Canary Islands. Third year astronomy students may also spend a week on
Tenerife doing an observational project. Both the BSc and MPhys courses
include project work developing skills in research and communication, the
extended MPhys project normally involving close collaboration with a
research group in the department. Links to departmental research are
emphasised throughout the course, and students are encouraged to attend
a wide-ranging programme of seminars and colloquia.

Regulations on Transfer between Courses: Transfers between single
and dual honours are possible up to the end of Year 1 (Year 2 for some
programmes); transfer between MPhys and BSc up to the end of Year 2.

Accommodation: The University guarantees to make a place available in
University owned housing (which will be either Hall of Residence or
University self-catering property) to all single first year undergraduates who
have firmly accepted an offer of a place at the University by early July.

Further Information: Dr Mark Fox

THE DEPARTMENT OF
PHYSICS AND ASTRONOMY
AT SOUTHAMPTON

With a top 5* rating in the 2001 Research Assessment
Exercise, the Department joined with just four others
in the UK to form a premier league of internationally
renowned physics departments.

- Excellent in both Teaching and Research
- Exceptionally wide range of research interests of
  staff allows all courses to be taught by experts.
- Flexible 3-year (BSc) and 4-year (MPhys)
  degrees offered in which Physics can be
  combined with other subjects, including
  Astronomy, Space Science and Photonics (the
  science and application of light).
- Physics with Astronomy courses include a field
  trip to a professional observatory in Tenerife
- Enthusiastic Student Physical Society.
- Guaranteed university accommodation in first
  year
- Excellent campus facilities and a lively student
  oriented city with good transport links.
- Proactive careers advice, excellent employment
  prospects

For further information please visit our website and/or
contact: The Admissions Tutor, Department of
Physics and Astronomy, University of Southampton,
Southampton, SO17 1BJ.

Tel: (023) 8059 2068 Fax: 023 8059 3910
Email: entry@phys.soton.ac.uk
Web: http://www.phys.soton.ac.uk
University of Southampton

Southampton SO17 1BJ
Main Sites: 2 Full Time Undergraduates: 12500
% of Undergraduates reading Science and Engineering: 30
Accommodation (% in Hall in 1st year): 100

Department of Physics Academic Staff: 35
(Tel: 023 8059 2068)

Teaching Content and Philosophy: Degree programmes have a modular structure, with a mixture of compulsory core courses and a wide range of optional courses, all of which are taught by experts in the field. Teaching is based on lectures and student-centred coursework, including tutorials and problems classes, laboratory work, projects, dissertations and seminars. Alongside academic work, care is taken to develop the skills that employers require. Success rates are high, and students go on to a wide range of interesting and rewarding careers.

Special Facilities/Resources: The Department is situated on the main campus of the University, in close proximity to the library and sporting and social facilities, and only about 10-15 minutes walk away from student residences. The teaching laboratories are large and comprehensively equipped, with computers much in evidence for controlling experiments and manipulating data. There is a specialist photonics laboratory equipped with research grade lasers and related apparatus, and also two roof top observatories, each housing a high quality telescope with a CCD detector. Students have access to a dedicated reading room, and also a computer suite with free access to the internet and email. Most final year projects are conducted in research laboratories alongside professional research staff.

Special Feature of Courses: Students studying Physics with Astronomy or Physics with Space Science have the opportunity to undertake a field trip to the University of La Laguna in Tenerife. Students studying Physics with Photonics benefit from the expertise and facilities available in Southampton’s world famous Optoelectronics Research Centre.

Regulations on Transfer between courses: Transfers between BSc and MPhys degrees and from single honours (straight physics) to combined honours (physics with ...) degrees are possible up to the end of second year. Transfers from combined honours to single honours degrees can be made at any time.

Further Information: Dr Christian Kaiser (Admissions Tutor)
Email: entry@phys.soton.ac.uk
Web: http://www.phys.soton.ac.uk
rocket scientists wanted

MPhys and BSc degrees in Physics

The world needs ‘rocket scientists’. They are essential – not only to launch satellites or to explain the origins of the universe – but to make financial predictions in ‘The City’ and to cure patients in hospitals.

In fact, they are vital in helping the world run more smoothly.

Lots of universities offer degrees in Physics. At the University of Surrey we provide an added dimension to our degrees in the form of:
• professional training in industry
• innovative MPhys research year
• unique, exciting options
• high-calibre teaching (given a score of 23 out of 24 in the Teaching Quality Assessment)
• excellent employment prospects (lowest unemployment rate of all UK universities).

Take advantage of these added dimensions.

University of Surrey

More information: Dr Richard Sear, Admissions Tutor, Department of Physics, University of Surrey, Guildford GU2 7X11
Tel: +44 (0)1483 686800 E-mail: r.sear@surrey.ac.uk
www.ph.surrey.ac.uk

Physics at Surrey – an Added Dimension
University of Strathclyde

John Anderson Building, 107 Rottenrow, Glasgow G4 0NG
Main Sites: 2  Full Time Undergraduates: 11000  
% of Undergraduates reading Science and Engineering: 50  
Accommodation (% in Hall in 1st year): 40  
Department of Physics  Academic Staff: 31  
(Tel: 0141-548 3378)

Teaching Content & Philosophy: The degree courses have a modular structure and each year consists of a mixture of compulsory and elective classes. This provides great flexibility by giving students freedom to pick the selection of classes most suited to their interests and ambitions. The degree programmes are designed to provide a sound knowledge and understanding of the laws and methods of physics and their application to technological and multidisciplinary problems. The core topics in the first two years are common to all courses and the later years contain a large element of project work.

Special Facilities/Resources: Small group tutorials from first year onwards. Extensive departmental computing and instrumentation laboratories. Large undergraduate lasers and optoelectronics laboratories. Final year students undertake projects with research groups in the department in areas such as lasers and optoelectronics, computational non-linear and and quantum optics, superconducting devices and biomagnetics, relativistic electron beams and cyclotron masers, spectroscopy and optical oceanography. Teaching in the department was rated as Excellent in the Teaching Quality Assessment.

Special Features of Courses: The Applied Physics and Lasers Physics and Optoelectronics courses have integral industrial projects in the summer before the student’s final year. The Physics with Teaching Qualification Course combines Physics with Education from first year onwards. The Physics with Mathematical Finance course combines Physics, Mathematics, Computing and Finance, in all years.

Regulations on Transfer between Courses: Transfer is straightforward between courses up to start of third year.

Further Information: Dr R Brown (e-mail: ronal.brown@strath.ac.uk)  
Website: http://phys.strath.ac.uk

University of Surrey

Department of Physics, Guildford, Surrey GU2 7XH
Main Sites: 1  Full Time Undergraduates: 5100  
% of Undergraduates reading Science and Engineering: 65  
Accommodation (% in Hall in 1st year): 100  
Academic Staff: 29  
(Tel: 01483 689247; Fax: 01483 686781)

Why Surrey Physics?

- Unique "Professional Training Year" option for all BSc degrees provides a full salary for one year and experience in a physics-related industry, enhancing employment prospects and improving your CV.
- A modern, effective modular structure provides choices and flexibility to tailor to your interests and allows easy transfer between degree programmes until end of the First Year.
- Surrey consistently has the lowest graduate unemployment rate of any UK university.
- Our teaching excellence was recognised with an award of 23 out of 24 in the 1999 national Teaching Quality Assessment.
- A preliminary Foundation Year enables entry for those students without Physics and/or Mathematics A-level qualifications.

Outstanding Features of Surrey's Degree Programmes

- Our innovative and popular MPhys degrees include a paid research year, which is excellent preparation for a career and a chance to work abroad, if desired.
- Our "Physics with " courses reflect the Department’s strengths in key areas, ensuring that you meet lecturers who are at the forefront of their specialism.
- Our "Physics with Nuclear Astrophysics" degrees build on our international reputation in nuclear physics.
- Our degrees in Physics with Satellite Technology - unique to the UK - draw upon the expertise of the highly-successful, campus-based company (Surrey Satellite Technology Ltd.) that builds and launches its own micro-satellites.

Valuable Enhancements to Learning

- Small group tutorials and a personal tutor provide unlimited tutorial support and ensure excellent student progression and success rates.
- Final Year projects use state-of-the-art facilities, such as magnetic resonance imaging equipment, powerful computers, and an ion beam accelerator and are supervised by internationally-leading researchers (RAE Grade 5).
- Valuable communication skills are taught and foreign language training
is offered as an option.

- £1000 bursaries offered to reward outstanding A-level achievement (A’s in both Physics and Mathematics).

**Bonuses of Campus Life**

- First-year students are guaranteed University accommodation.
- Our single, modern parkland campus near to the centre of the historic, cathedral city of Guildford, is only 35 minutes by train from the heart of London.
- Each and every student room is fitted with a telephone providing free on-campus calls and a voice-mail service.
- All students have 24-hour access to well-equipped computing facilities with free internet access.
- Excellent social facilities with over 120 clubs and societies supported by the Students’ Union.

**Further Information:** Dr Richard Sear, Admissions Tutor  
(e-mail: r.sear@surrey.ac.uk)  
Website: www.ph.surrey.ac.uk

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**University of Sussex**

**Brighton BN1 9QJ**  
Main Sites: 1  
Full Time Undergraduates: 6,900  
% of Undergraduates reading Science and Engineering: 39  
Accommodation (% in Hall in 1st year): 95

**Physics and Astronomy Department**  
Academic Staff: 25  
(Tel: 01273 678557)

**Teaching Content & Philosophy:**

- Our teaching was rated Excellent in the most recent assessment of teaching quality.
- You will learn through a variety of methods, including workshops, practical laboratory work, lectures and tutorials.
- We offer a huge variety of courses and provide a flexible option scheme allowing you to customise your degree.
- We offer degrees in Physics, Astrophysics, Theoretical Physics, Physics and Law, Physics and Mathematics, and Minors in American Studies, Astrophysics, Education Studies, Environmental Studies, French, German, Spanish, Management Studies and Theoretical Physics.

**Facilities and Resources:**

- We have well equipped teaching laboratories, an on-campus rooftop observatory and a computer-controlled 0.5m reflecting telescope.
- IT training is integrated into all our courses, and you will have 24 hour access to an extensive range of computing facilities, from PCs to supercomputers.
- Campus facilities are excellent, and include shops, banks, restaurants and coffee bars, a health centre, dentist, optician and pharmacy. A variety of pubs and bars, a theatre and cinema, art gallery, excellent sporting facilities and numerous clubs and societies mean that you are never stuck for entertainment.

**Special Features:**

- Scholarships of £1,000 per annum for students who obtain AA in Maths and Physics at A level and firmly accept our conditional offer.
- The final year of the MPhys degree has a research orientation with most of the courses on specialised topics.
- We offer a four-year Physical Science Degree which is specifically designed for students without the usual background in physics.
- Students can chose to spend six months studying in an English speaking University in Canada or Sweden.
- Some degree programmes are available for part-time study.

**Further Information:** Dr Mark Hindmarsh  
01273 678455  
physics@sussex.ac.uk  
www.sussex.ac.uk/physics
University of Teesside
Borough Road, Middlesbrough, Cleveland TS1 3BA
Main Sites: 1  Full Time Undergraduates: 8000
% of Undergraduates reading Science and Engineering: 25
Accommodation (% in Hall in 1st year): 90
School of Science and Technology Academic Staff: 82
(Tel: 01642-218121/342518)

Teaching Content & Philosophy: The course comprises modules of scientific fundamentals, instrumentation and applicable legal topics to provide a background for work in calibration, testing, quality assurance, trading standards and measurement for forensic purposes.

Special Facilities/Resources: The University has within the School of Science and Technology a wide range of analytical equipment for undertaking specific physical, chemical and biological measurements. In addition, there is expertise in trading standards, metrology and forensic science.

Special Features of Courses: Forensic investigation courses combine fundamental science modules with appropriate law modules, with a wide range of applications in areas of forensic science.

Regulations on Transfer between Courses: Transfer may be possible to other science courses such as chemistry, microbiology etc., or to engineering courses in instrumentation.

Further Information: Dr Andrew Campbell

Trinity College
Trinity College, founded in 1591, is at the centre of Ireland’s vibrant capital city. Physics has been studied in College since 1724.

The Department of Physics provides four-year honours degree programmes in: Physics, Theoretical Physics, Computational Physics, and Physics and Chemistry of Advanced Materials.

Features:
Courses fully accredited by the Institute of Physics.
Specialist options including Astrophysics.
Final year research project in Dublin, European or US laboratories.
Several recent winners of Institute of Physics undergraduate prizes from department.
New Institute of Advanced Materials next to department.
College scholarships and accommodation available.
80 College societies including the Physical Society, and 50 College sports clubs.
The College library – over 4 million volumes.
Opportunities to interact with the large departmental research programmes and for postgraduate research, funded by the EU, Science Foundation Ireland, and elsewhere.

Further information from:
Ms Susan Priest, Department of Physics, Trinity College, Dublin 2, Ireland.
Telephone: 00353-1-6082019. E-mail: priests@tcd.ie
http://www.tcd.ie/Physics/

Information on admissions:
Admissions Office, Trinity College, Dublin 2, Ireland.
http://www.tcd.ie/Senior.Lecturer/Admissions/
Institute of Technology, Tralee
Clash, Tralee, Co. Kerry, Ireland
Main Sites: 2    Full Time Undergraduates: 2685
% of Undergraduates reading Science and Engineering: 56
Accommodation (% in Hall in 1st year): 0
School of Science    Academic Staff: 52 (Physics 3)
(Tel: +353 66 7145600)

Teaching Content & Philosophy: Lectures, laboratory classes, visiting lecturers, industrial visits. Emphasis on problems solving, applications and project work prepares students for employment or further education. Staff easily accessible to students.

Special Facilities/Resources: The physics laboratory is well stocked with a wide range of modern equipment. Students have access to computer laboratories and college workshops.

Special Features of Courses: Course structures in Institutes of Technology form a ladder system permitting students to transfer to higher level courses on successful completion of their current courses subject to the level of academic achievement attained. Courses involve a high percentage of laboratory work. The Photonics diploma course comprises major components of optics and electronics.

Regulations on Transfer between Courses: Students must normally achieve Merit 2 (55% average) or better to proceed.

Further Information: Dr J Corr/Dr J Treacy
e-mail: john.corr@ittralee.ie
Website: http://www.ittralee.ie

Trinity College, University of Dublin
Dublin 2, Ireland
Main Sites: 1    Full Time Undergraduates: 11000
% of Undergraduates reading Science and Engineering: 30
Accommodation (% in Hall in 1st year): 3
Department of Physics    Academic Staff: 28
(Tel: + 353-1-608 2019)

Teaching Content & Philosophy: The department offers four year courses leading to degrees in Physics, Computational Physics, Theoretical Physics and Physics and Chemistry of Advanced Materials. Structured teaching through lectures, tutorials and laboratory and project work provides a firm grounding in all branches of physics and brings students into contact with the forefront of international research as practised in the department. About 40 students graduate each year from the department.

Special Facilities/Resources: Large and active research groups; areas include surface and interface physics, magnetic materials, lasers and optoelectronics, polymer physics, environmental radiation, nanotechnology, astrophysics, and computational and theoretical physics. The department is on a historic city-centre campus, which provides a wide range of student facilities. A large Institute of Advanced Materials Science has been built next to the department, in which the department occupies most of the space.

Special Features of Courses: A broad base first two years; specialist options (including Astrophysics) and project in final year; project can be undertaken outside Ireland. College scholarships are available.

Regulations on Transfer between Courses: Flexible in first two years - college tutors give advice.

Further Information: Dr E C Finch
Website: http://www2.tcd.ie/Physics/
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- Internationally Recognised Research
- Exciting Portfolio of Degree Schemes
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For a brochure and further details please contact:
Dr. Peter Dunstan
01792 513052
p.r.dunstan@swan.ac.uk
www.swansea.ac.uk/physics

Physics at Swansea - Physics for the Future
A degree in physics at Aberystwyth will introduce you to the most fundamental and wide ranging of all the sciences - a science which embraces subjects as diverse as space physics, astronomy, cosmology, relativity, quantum mechanics and chaos.

The department has an international reputation which is grounded in its research work; this includes space, solar, ionospheric, atmospheric, shock wave and materials physics. The department occupies an award-winning building (featured on a postage stamp!) on a delightful, green, hillside campus backed by the Welsh mountains and overlooking Cardigan Bay.

The department is also known for its friendly, informal atmosphere and its commitment to small-group teaching. The department places a strong emphasis on developing the problem-solving and communication skills necessary for a working physicist. Teaching facilities are first-class and include well-equipped teaching laboratories and easy access to computer workstations and the university’s computing infrastructure.

MPhys and BSc modular degrees are offered in:

- Physics
- Physics with Planetary and Space Physics
- Physics with Atmospheric Physics
- Space Science and Robotics

An established department with a 119 year history of excellence in teaching and research

Combined and Joint Honours BSc modular degrees are offered in Physics with: Business Studies, Mathematics, Computer Science, Geography, Education, French, German and Spanish

Excellent opportunities for PhD studentships in all research areas

Students have access to state-of-the-art computer-controlled telescopes

Entrance scholarships worth up to £1650 per year

A beautiful, rural, seaside location for sailing, climbing, walking etc.

Promoting Excellence in Teaching and Research

For further information and a detailed brochure, please contact Dr. Andy Evans, The Department of Physics, University of Wales, Aberystwyth SY23 3BZ (Tel: 01970-622802, email: physics@aber.ac.uk, www.aber.ac.uk/physics).
University of Wales, Aberystwyth

Penglais, Aberystwyth, Dyfed SY23 3BZ
Main Sites: 1 Full Time Undergraduates: 4163
% of Undergraduates reading Science and Engineering: 34
Accommodation (% in Hall in 1st year): 100

Department of Physics Academic Staff: 17
(Tel: 01970 622806)

Teaching Content & Philosophy: The modular courses offered provide a solid grounding in classical and modern physics. There is a strong emphasis on small-group tutorials and developing the problem-solving and communication skills essential to a working scientist. Specialist modules are taught by active researchers in the fields of materials, space, ionospheric, atmospheric, shock-wave and integrated-sensor physics. The department prides itself on its friendly, informal atmosphere and its commitment to excellence in teaching.

Special Facilities/Resources: The department occupies an award-winning modern building on a beautiful seaside campus. Students have easy access to staff and are provided with substantial computing facilities and well-equipped laboratories.

Special Features of Courses: Group and individual projects often involve working with leading research groups. Scholarships and awards worth up to £1650 per year are available. MPhys students can spend a semester studying space, ionospheric and atmospheric physics at UNIS, an international university on the island of Svalbard in the high Arctic.

Regulation on Transfer between Courses: Transfer between courses is possible up to the start of year two.

Further Information: Dr K Birkinshaw
see also http://www.aber.ac.uk/physics

University of Wales Swansea

Singleton Park, Swansea SA2 8PP
Main Sites: 1 Full Time Undergraduates: 7011
% of Undergraduates reading Science and Engineering: 35
Accommodation (% in Hall in 1st year): 100

Department of Physics Academic Staff: 14
(Tel: 01792-295849)

Teaching Content & Philosophy: Swansea offers internationally recognised research in theoretical and experimental physics in the context of a small friendly department with a good record of student achievement. Indeed, in the 2001 Research Assessment Exercise it was the smallest department to achieve grade 5. The course aims for a balance between command of fundamental concepts and a wide range of modern applications, with emphasis on project work and good presentation and communication skills. Teaching was rated Excellent in the recent Higher Education Funding Council assessment exercise.

Special Facilities/Resources: The department has advanced scanning probe microscopes, as well as specialist equipment in atomic, laser and medical physics. All undergraduates have access to a local area network of PCs and workstations.

Special Features of Courses:
- The flexible degree options reflect the department’s strength in key areas of current research, ensuring that you are taught by lecturers at the forefront of their area of expertise.
- The MPhys final project is uniquely dedicated to an entire teaching block, with no other modules taught, and thus gives you the opportunity to fully concentrate on a project and to work within a specialised research group under direct supervision.
- Our successful foundation year scheme gives those with inappropriate A-levels an opportunity to study and graduate with a BSc degree.
- An optional year abroad at a European or US University is possible.
- A small friendly department with small group teaching and weekly academic tutorials ensure full support and progress towards success.

Regulation on Transfer between Courses: Selection of degree options occurs in the first term of the second year. Transfer between BSc and MPhys degrees is possible up to the end of the first year, subject to satisfactory progress.

Further Information: Dr Peter Dunstan
email: p.r.dunstan@swansea.ac.uk
Website: http://www.swansea.ac.uk/physics
University of Warwick

Coventry CV4 7AL

Main Sites: 1 Full Time Undergraduates: 10,000
% of Undergraduates reading Science and Engineering: 40
Accommodation (% in Hall in 1st year): 100

Department of Physics Academic Staff: 32
(Tel:024 7652 3376)

Teaching Content & Philosophy: The main Physics and Mathematics
and Physics degrees are designed to offer a broad and flexible education.
They lead to a BSc after three years or an MPhys after four.

Special Facilities and Resources: Warwick is strong in research. In their
final year students benefit from interaction with the research community
when they can undertake a small research project of their own.

Special Features of Courses: At Warwick all departments aim to keep as
many courses as possible open to students from other disciplines and
students are actively encouraged to take outside courses. These help
students to see physics in the context of science and education generally.

Regulations on Transfer between Courses: Transfers are possible after
the first year. In the first term of the second year students register for the
three year (BSc) or four year (MPhys).

Further Information: Nicholas d'Ambrumenil
Website: http://www.phys.warwick.ac.uk
University of York

Heslington, York YO10 5DD
Main Sites: 1 Full Time Undergraduates: 5700
% of Undergraduates reading Science and Engineering: 48
Accommodation (% in Hall in 1st year): 100
Department of Physics Academic Staff: 23
(Tel: 01904-430000/432241)

Teaching Content & Philosophy: The aim is to provide a coherently structured, broad-based set of courses, within a modular framework, most of which can be taken as a four year MPhys course. Importance is attached to project work, personal study and communications skills.

Special Facilities/Resources: There are excellent facilities for undergraduates, including workshops, computing services, observatory and 3m dish radio telescope. Student exchange schemes (SOCRATES and ERASMUS) exist with German, French and Italian universities. It is possible to spend an additional year in Europe on BSc courses as an integral part of the course; for MPhys courses, the third year is spent abroad. A wide range of research activities, of international standing, are pursued.

Special Features of Courses: There is considerable flexibility to change courses during the first year. Transfer between BSc and MPhys courses is normally possible in the first two years. Particular emphasis is put on tutorial teaching in the first two years. A range of options and projects is available in the third year and fourth year (MPhys students). A Foundation Year is available which enables entry to courses without the normal A level (or equivalent) requirements.

Regulations on Transfer between Courses: At discretion of the relevant Boards of Studies, applications normally accepted if in good academic standing.

Further Information: Dr S M Thompson
Website: http://www.york.ac.uk/physics
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- Artificial intelligence
- Communications Engineering
- Electrical Engineering
- Environmental Engineering
- Mechanical Engineering
- Computer Engineering

The degree course follows the traditional four year Scottish pattern with entry to second year for good A level or equivalent qualifications.

Scotland’s top university for graduate employment.

The Information Centre, The Robert Gordon University, Schoolhill, Aberdeen, AB10 1FR.
Tel: 01224 262180. E-mail: i.centre@rgu.ac.uk