



# Physics

Postgraduate study 2014

Wonderful things are discovered here.

# **Physics**

The Department of Physics is a vibrant, friendly department with approximately 80 PhD students and 33 academics drawn from the UK and overseas. 55% of our research was rated by the 2008 Research Assessment Exercise as world leading or internationally excellent. Research interests range from fundamental physics to applied physics using theoretical, experimental and/or computational techniques.

## **Taught programmes:**

- MSc Medical Physics
- MSc Physics (EuroMasters)
- MSc Physics
- MSc Radiation and Environmental Protection
- MSc Radiation Detection and Instrumentation

Key	
PT	Part-time
FT	Full-time
CPD	Continuing professional
	development
SC	Short courses

## Specific table notes

- 1 If your first language is not English, you will need to achieve a minimum IELTS requirement, or an equivalent, which varies by programme. You must achieve both our minimum overall band score and our minimum for each component.
- 2 This programme is offered subject to successful University validation.

		Programme Leader or Director	IELTS min. overall <sup>1</sup>	IELTS min. by component <sup>1</sup>	Programme length	UK/EU fees (2014–15)	Overseas fees (2014–15)	CPD/ SC
	Physics							
	MSc Medical Physics	Silvia Pani	6.5	6.0	FT 12mths, PT 24 mths	FT £7,055, PT £3,505	FT £18,460, PT £9,230	/
	MSc Physics (EuroMasters)	Annika Lohstroh	6.5	6.0	FT 24mths	FT £4,705	FT £12,310	/
	MSc Physics <sup>2</sup>	Annika Lohstroh	6.5	6.0	FT 12mths, PT 24 mths	FT £7,055, PT £3,505	FT £18,460, PT £9,230	1
	MSc Radiation and Environmental Protection	Patrick Regan	6.5	6.0	FT 12mths, PT 24 mths	FT £7,055, PT £3,505	FT £18,460, PT £9,230	
	MSc Radiation Detection and Instrumentation	Zsolt Podolyak	6.5	6.0	FT 12mths, PT 24 mths	FT £7,055, PT £3,505	FT £18,460, PT £9,230	

# **Taught programmes**

## **MSc Medical Physics**

The University of Surrey's Medical Physics MSc programme is well established and internationally renowned. Approximately one-third of all practising medical physicists in the UK are graduates of our programme. We have trained some 1,000 medical physicists, of whom more than 500 are from overseas and the European Union.

The programme includes comprehensive coverage of the predominant aspects of modern applications of physics to medicine. It is accredited by the Institute of Physics and Engineering in Medicine (IPEM).

We have close links with specialist teaching and regional Trust hospitals, as well as research institutes. These all provide lecturers with both up-to-date experience and outstanding opportunities for project research work.

#### **Entry requirements**

A 2.2 honours degree (or overseas equivalent) in the physical sciences or a relevant engineering discipline.

## **MSc Physics (EuroMasters)**

The MSc Physics (EuroMasters) is a two-year (120 ECTS credits) programme. This is the same length and number of credits as most Masters degrees in continental Europe.

Students select eight modules from a wide range of fundamental and applied physics topics offered in the first year from the Department of Physics' internationally-respected fundamental physics taught provision, as well as from the vocationally-oriented MSc programmes. Students tailor their study programme to suit their interests and needs in discussion with the Programme Director. The skills learnt are then used and developed in the second year, when students will have training in research skills. You will take part in a five to six-month research project that will equip you for further research work in industry, international research laboratories or universities.

During the project, the student will be part of a research group and so will receive help and support, and learn from the other members of the group. The project may be undertaken at research facilities such as the Rutherford Appleton Laboratory in Oxfordshire or in a European university. It is this project in the second year that differentiates the EuroMasters programme from most UK MSc courses. Research experience opens the door to many careers, not just further research. The maturity and experience gained during a research project provide an extra dimension to the qualification beyond that of a conventional one-year Masters programme.

## **Entry requirements**

A minimum 2.2 honours degree (or overseas equivalent) in the physical sciences or in a relevant engineering discipline. For direct entry to the second year, students are required to have achieved the equivalent of a Postgraduate Diploma in Physics (120 credits at Level M). Applicants with suitable industrial experience will also be considered.

# **Taught programmes**

## **MSc Physics**

(subject to validation)

The MSc Physics is a one-year (90 ECTS credits) programme.

Students select eight modules from a wide range of fundamental and applied physics topics offered in the first two semesters from the Department of Physics' internationally-respected fundamental physics taught provision as well as from the vocationally-oriented MSc programmes. Students tailor their study programme to suit their interests and needs in discussion with the Programme Director (and subject to timetabling). The skills learnt are then used and applied during the summer, when you will undertake an 11-week research project. The project may be undertaken at research facilities such as the Rutherford Appleton Laboratory in Oxfordshire or in a continental European university.

Research projects can open the door to many careers, not just further research, and will give you tangible experience of working independently and communicating your work effectively and efficiently in written form, which are key requirements in many professions.

# **Entry requirements**

A minimum 2.2 honours degree (or overseas equivalent) in the physical sciences or in a relevant engineering discipline. Applicants with suitable industrial experience will also be considered.

#### MSc Radiation and Environmental Protection

This programme aims to provide a thorough grounding in radiation protection and to show how the technical and organisational procedures of the discipline may be applied to the broader concept of environmental protection. The substantial practical element of the programme enables you to relate taught material to its real-world application.

As well as attending formal lectures, you will carry out work in radiation laboratories. There is also a group project in the spring and an elevenweek MSc dissertation project in the summer. You will use a wide range of radioactive sources and radiation detectors.

The MSc benefits from both the strong research base in the Department and a number of external lecturers who are working specialists in their fields. The programme's longstanding reputation within the field and strong industrial links ensure that our graduates are highly sought after for well-remunerated positions in both the public and private sectors.

The programme is taught by a combination of world-leading nuclear physics academics and experts from the UK's radiological protection and nuclear industries.

## **Entry requirements**

A minimum 2.2 honours degree (or overseas equivalent) in the physical or environmental sciences, electronics or in a relevant engineering discipline.

# MSc Radiation Detection and Instrumentation

The Department of Physics has one of the largest nuclear and applied radiation physics research groups in the UK. This MSc builds on our strong international reputation in detector physics and technology, and our existing excellent links with industry and government institutes. These companies and institutes are in areas such as radiation physics, environmental monitoring and detector technology.

The programme provides training and expertise in the use of radiation detectors, instrumentation techniques and data processing. It covers applications in a range of fields including medical physics, nuclear and particle physics, astronomy and homeland security. Industrial sectors that use radiation detection include medical imaging, security and baggage scanning, the nuclear power industry and defence.

As well as attending formal lectures, you will carry out work in radiation laboratories. There is also a group project in the Spring and an eleven-week MSc dissertation project in the summer.

## **Entry requirements**

A minimum 2.2 honours degree (or overseas equivalent) in the physical or environmental sciences, electronics or in a relevant engineering discipline.

# Fees and financial support

There are a lot of things to consider when deciding to further your study – what subject, full-time or part-time study and how much it will cost. At Surrey, we understand what a big undertaking this is. These pages provide information about postgraduate fees and potential sources of funding and the financial support available for your postgraduate studies.

# **Payment of fees**

Fees are payable for each academic year, or part thereof, or each stage of the programme, where fees are not payable on an annual basis, and are revised (increased) subject to annual review. Fees are payable by students continuing on programmes of study in subsequent years.

The University reserves the right to cancel the registration of a student who has not paid the requisite annual composition fees, or who owes the University any sums of money. In the event of a student failing, for any reason, to complete a programme of study, the University will not be under any obligation to return any part of the fees paid by, or on behalf of, the student.

Certain programmes may need additional expenditure for special equipment, field courses, study periods overseas, and so on. Modest charges are made by some faculties or departments for supplementary materials or services, for example, photocopied handouts. Details of these expenses may be obtained from the appropriate faculty or department.

# Classification of students for fees purposes

For some programmes of study, the University charges different fees, depending on a student's status as a 'Home' or 'overseas' student. The classification of students for fees purposes is based on the Education (Fees and Awards) Regulations 2007. Further information on eligibility criteria and general guidance on fees classification is available from the UK Council for International Student Affairs (UKCISA).

In general, in order to qualify as 'Home' for fees purposes, a student must have a relevant connection with the UK, or qualify as an 'excepted candidate' under these regulations, for example, as a national of an EU member state.

If you would like to enquire further about your own classification, please contact:

**Admissions Services** 

T: +44 (0)1483 682222

E: admissions@surrey.ac.uk

# Continuing fees for students pursuing taught programmes of study

In general, students on postgraduate taught programmes are not required to pay continuing fees, although extension fees may be payable for certain programmes. In such cases, the faculty will notify students of the arrangements.

# Surrey and Santander Country and University Scholarships

With nearly 4,000 international students from over 140 different nationalities studying with us, we are one of the most culturally diverse universities in the country. We are also a member of Santander Universities, a worldwide network of over 800 tertiary education institutions. Santander Universities Global Division generously supports Surrey's international engagement through sponsorship of student and staff mobility, language programmes and entrepreneurship initiatives.

We have recently introduced three new scholarship schemes aimed at further enhancing our cultural diversity:

- Surrey Country Scholarships
- Santander Country Scholarships
- Santander University Scholarships

For full information on eligibility and how to apply, please visit: surrey.ac.uk/postgraduate/fees

# **Discounts for Surrey graduates**

If you are a self-funded UK, EU or international student who has studied for an undergraduate degree at the University of Surrey campus in Guildford, you will be eligible for a 10% discount on our taught postgraduate Masters programme fees.

For more information, contact the Student and Fees and Funding office:

feesandfunding@surrey.ac.uk

# Indonesia-UK DIKTI Scholarship Scheme

This programme is open for lecturers at Indonesian universities and administrative staff at universities and at the Indonesian Ministry of Education and Culture - Directorate General of Higher Education (DIKTI). The programme will fund up to 750 academics to come and study in the UK over the next five years. All academic subjects are eligible for funding under the DIKTI programme. For more information visit

international.ac.uk/dikti

## **Tullow Oil Scholarship Scheme**

The University of Surrey is delighted to announce it has recently been selected to participate in the Tullow Oil Scholarship Scheme.

If you are a prospective Masters student from one of the following countries, you may be eligible to apply for this scholarship:

- Cote D'Ivoire
- Ethiopia
- French Guinea
- Gabon
- Ghana
- Kenya
- Mauritania
- Uganda

For full details on eligibility and how to apply please v isit

tullowgroupscholarshipscheme.org

# **Career Development Loans**

A Professional and Career Development loan offers financial assistance while you improve your prospects.

Career Development loans are available directly via Barclays Bank and the Co-operative Bank.

# **Your Application**

To apply for a programme, you'll need to complete and submit our online application form, which you can access via the specific programme profile pages on our website: surrey.ac.uk

# How to apply

Prior to making your application you should refer to the specific programme profile page on the website for a list of the mandatory documents that you will be required to provide as part of your application.

While there is no formal application or deadline for the majority of our programmes, it's best to apply as early as possible to avoid disappointment. Where a programme does have an application deadline, the date is detailed on the specific programme profile page on the website.

Shortly after submitting your application, you will be emailed details of how to access the applicant portal where you will be able to track the status and outcome of your application.

# Admissions policy and selection

The University of Surrey offers a high-quality learning environment which supports you in achieving your full potential in your academic discipline and prepares you for your career and lifelong learning. It is University policy that all applicants are considered primarily on merit and their academic potential. We welcome applications from people who, in addition to any formal qualifications, can demonstrate:

- Intellectual ability (sufficient to profit from the vigorous demands of a degree programme)
- Suitability for their chosen programme of study
- Motivation to study
- Interest in their chosen subject

To be considered for an offer, you will usually be expected to have achieved, or be predicted to achieve, our minimum entry requirements or above. However, we are unable to guarantee that meeting the grades stated in our entry requirements will be enough to enable us to make you an offer. All aspects of your application will be taken into account when deciding to make an offer to you.

Admission to the University is subject to your acceptance and observance of the University's rules and regulations. Our full Admissions Policy, including information on the Contract of Admission and complaints procedure, can be found on our website:

surrey.ac.uk/admissionspolicy

## **International applicants**

# English language requirements

To benefit fully from a postgraduate programme, you will need a good standard of English and will have to provide evidence of your ability. The minimum standard required is shown below, which applies to the majority of programmes. Where a higher level is required, this will be detailed within the taught programmes table at the beginning of this brochure.

The following qualifications are accepted by the University as evidence that you meet our minimum level of competence in English:

- Cambridge Certificate in Advanced English (grade B)
- Cambridge Certificate of Proficiency in English (grade C)
- International English Language Testing System (IELTS) (band 6.5 overall, with a minimum of 6.0 in each of the four components); the test must have been taken no earlier than two years before the start of your programme
- Test of English as a Foreign Language (TOEFL) with 92 overall in the internet-based test, with 22 or higher in each component (23 or higher in the speaking test); the test must have been taken no earlier than two years before the start of your programme

The University of Surrey has an IELTS test centre on campus. If you have IELTS at 0.5 below the required level for your programme and at no lower than 0.5 below the level in any single component, you will meet our English requirements upon subsequent successful completion of the University of Surrey's ten-week pre-sessional English programme, PS10, without the need to take another IELTS test.

surrey.ac.uk/englishlanguage

## Visa applications

If you require a student visa, you need to apply through Tier 4 of the Points-based Immigration System. Full information about this new system can be found at:

ukba.homeoffice.gov.uk

#### **ATAS**

There is an extra permission that you may need to get when you are a postgraduate student researching or studying some science and engineering subjects, if you are a national of a country that is not part of the EU/EEA. This is called the Academic Technology Approval Scheme (ATAS).

You must get your ATAS certification before we can issue your Confirmation of Acceptance for Studies (CAS), which you will need to apply for your Tier 4 general student visa. Most PhD subjects in science and engineering need ATAS certification. At the time of publication, 14 Masters-level programmes at the University of Surrey require ATAS.

fco.gov.uk

# **Disabled and dyslexic students**

It is University policy that all applicants are considered primarily on merit and their academic potential. However, it is essential for the University to know the nature of any impairments in advance, so that we may advise on what facilities and arrangements are available to you.

If you have a disability, dyslexia or medical condition which may affect your ability to study your chosen programme, please let us know on your application form.

# **Accommodation**

When choosing a university, the choice, quality, location and cost of accommodation on offer will be important factors in your final decision. At Surrey, we offer a variety of good quality accommodation, with a choice of several price bands.

Our accommodation is arranged in groups of self-catered housing called Courts of Residence, and has been designed to meet your needs and provide you with a living space to make your own.

# Guaranteed accommodation in your first year

As a new postgraduate student, you will be guaranteed a place in University accommodation. Living in the Courts of Residence is a great way to meet new people and find your feet. Our students find it easy to settle in when they first move to Surrey. You can be reassured that we do everything we can to make you feel at home.

You can access the University easily from all our Courts of Residence, whether on foot or by bus. Reflecting all the benefits of the Courts of Residence on the Stag Hill campus, our accommodation at nearby Manor Park is situated in an area of great natural beauty. Designed as a car-free student village, with a subsidised bus service, Manor Park is home to a first-class learning and living environment. In addition, Hazel Farm, on the edge of Guildford, provides an affordable option, with the added benefit of a free bus pass valid throughout the town.

# The second year and beyond

In the second year and beyond, students normally find their own place to live in the Guildford area, and help and support can be provided by our experienced Accommodation Services staff. Private sector houses and rooms are readily available in Guildford and range in price from £75 to £99 per week. The University also manages property in the town which is let to students.

Continuing students can apply for University accommodation but are not guaranteed a room. The numbers housed vary from year to year, depending on current allocation policy and demand for places.

Our Accommodation Services staff will help you to find the right place to live, on or off campus, at an affordable rent, throughout your time at Surrey.

Our Courts of Residence offer five rent bands, so you will be able to find accommodation that suits your budget. As a guide, 2013–14 rents range from £65 to £148 per week, with typical standard rooms costing £98 and en suite £121.50 per week. The actual prices for 2014–15 rents will be confirmed in spring 2014.

Our rents are inclusive of utilities, broadband and insurance, so there is nothing extra to pay. To make life easy, rent can be paid once a term.

# Accommodation for couples and families

If you plan to bring your family, we have some family accommodation available on the Stag Hill campus, at Hazel Farm and Manor Park. We regret that we cannot guarantee the availability of family accommodation.

# Accommodation for students with disabilities

Specially adapted rooms are available for students with physical impairments, on campus and at Manor Park. Please contact Additional Learning Support to discuss your needs.

#### **Accommodation facts**

- About two thirds of our accommodation is on the Stag Hill campus and more than 50 per cent of rooms have en suite shower and toilet facilities
- Manor Park is less than a mile away. It has over 1,500 en suite rooms and easy access to Surrey Sports Park
- Students share a kitchen-dining room
- · Access to free broadband
- Communal areas with TV room and mail racks
- Belongings insurance is included in the cost



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2011

Every effort has been made to ensure the accuracy of the information contained in this brochure at the time of going to press. The University reserves the right, however, to introduce changes to the information given including the addition, withdrawal or restructuring of degree programmes. The University is reviewing the structure of undergraduate modules which may result in some amendments to module titles and content.

