

Responsible for:	Research staff employed on programmes and
	awards directed by the post holder. May have
	supervisory responsibility for other staff.

Job Summary and Purpose

To develop a personal research portfolio in line with the Faculty's research strategy, to teach at undergraduate and postgraduate level, and to participate in Faculty administration.

Main Responsibilities/Activities

To support the research activities of the Faculty by:

Developing the research activities of the Faculty by sustaining a personal research plan independently and/or in collaboration with others as part of a larger research team.

Managing and undertaking research activities in accordance with a specific project plan, and supervising and guiding the work of staff and research students on own specialist area.

Developing innovative research proposals (as a self-contained item or as part of a broader programme), identifying sources of funding, submitting funding bids, and gaining positive reviews for these. Planning the research to be undertaken.

Publishing original research in appropriate journals or other media, as appropriate.

Attending appropriate conferences for the purpose of disseminating research results or for personal development.

To support the teaching objectives of the Faculty by:

Developing new teaching methods and designing programme units, and taking responsibility for the quality of programme units.

Planning, delivering and critically reviewing a range of teaching and assessment activities including lectures.

Training and supervising of students (including research students) and acting as a tutor for industrial/professional training year students, according to own area of subject specialism.

Setting/marking programme work, practical sessions, supervisions, fieldwork and examinations according to own area of subject specialism, and providing appropriate feedback to students.

Taking part in activities such as validating and examining in relation to the University's associated



institutions.

To undertake pastoral care of students

Using listening, interpersonal and pastoral care skills to deal with sensitive issues concerning students and provide support. Appreciating the needs of individual students and their circumstances. Acting as personal tutor and giving first line support. Referring students as appropriate to services providing further help.

To engage in scholarship by:

Continually updating knowledge and understanding in the field or specialism. Extending, transforming and applying knowledge acquired from scholarship to teaching, research and appropriate external activities.

To contribute to the efficient management and administration of the Faculty by:

Performing such personal administrative duties throughout the Faculty as are recognised by the University as properly within the remit of the work of academic staff, as allocated by the Head of Faculty. Such duties may include Faculty co-ordinating roles, for example, running the process of admissions, examinations or teaching quality assessment.

Advising, supervising and giving guidance to other staff

Person Specification

The post holder must have:

An honours degree or an appropriate and equivalent professional qualification in a relevant subject

Normally a doctoral degree

Normally former experience of working as a lecturer

Evidence of administrative and organisational skills

Evidence of current research/scholarship at post-doctoral level or equivalent



Relationships and Contacts

The post holder will be a member of such Faculty Committees as may be relevant to their administrative duties, for example Faculty Board of Studies and Examination Board. New appointees will be assigned a senior colleague to guide their development and aid their integration into the Faculty and university. Research priorities will be agreed within the strategic framework of the research theme of which they are a member. Teaching and administrative duties will be allocated by the Head of Faculty, within the context of the teaching programmes agreed by the Faculty Learning and Teaching Committee or similar body.

Special Requirements

To be able to participate in residential field work, in the UK or overseas, according to own area of subject specialism.

The post holder is expected to work outside normal office hours as necessary.

All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
 - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
 - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.



Addendum

This document provides additional information relating to both specific aspects of the post/Faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Job Purpose.

Job Title: Lecturer in Mathematics

Background Information/Relationships

FACULTY OF ENGINEERING AND PHYSICAL SCIENCES (FEPS)

The University of Surrey is organized into three faculties. The Faculty of Engineering and Physical Sciences (FEPS) is the largest faculty and comprises the Departments of Computing, Mathematics, Physics, Electronic Engineering, Chemical and Process Engineering, Civil and Environmental Engineering and Chemistry together with the Division of Mechanical Engineering Sciences and the Centre for the Environment and Sustainability. The total undergraduate population of the Faculty is about 2,400 students. Within these disciplines we enjoy a reputation for excellence in research and teaching, allied to a strong enterprise culture, numerous industrial interactions and partnerships, and an unrivalled record of graduate employment. We seek to recruit the best academic staff from around the world. Our strong research ethos is exemplified by our large and very vibrant postgraduate community (640 research students and over 800 taught postgraduates), supported by outstanding facilities. We believe in the principle that a university should contribute to the cultural wealth of society by developing the fundamental sciences, whilst also developing the technology applications which will improve our overall quality of life.

DEPARTMENT OF MATHEMATICS

Currently, research within the Department is associated with five broad themes, namely

- Data Science and Dynamics
- Dynamical Systems and PDEs
- Fields, Strings and Geometry
- Mathematics of Life and Social Sciences
- Nonlinear Waves and Geometric Fluid Mechanics



There is a high degree of collaboration within the Department, and (on multidisciplinary projects) with researchers from other Surrey centres and departments. We have links with the Met Office, the National Centre for Earth Observation, National Physical Laboratory, Surrey Police, and AstraZeneca. We are also part of an international network of universities with strong research and student exchange links, including a new dual PhD programme with Milano-Bicocca. The last Research Assessment Exercise ranked Surrey Maths 7th out of 42 Applied Mathematics groups in the UK for world-leading research outputs and 11th out of 53 Mathematics groups in the UK for overall 'quality per FTE'.

The Department's portfolio of undergraduate programmes consists of its MMath degree and a range of vibrant BSc programmes. The Department intends to grow its postgraduate MSc-level programmes in the coming years, particularly at the interface of dynamical systems and data science. Our National Student Survey results are excellent, with an average of 92.4% of students over the last 5 years declaring "overall satisfaction" with their programmes.

Further information about the Department can be found at www.surrey.ac.uk/department-mathematics.

Person Specification

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Job Purpose.

	Essential/ Desirable
An honours degree or an appropriate and equivalent professional qualification in a relevant subject.	E
A doctoral degree or equivalent in mathematics or a related discipline or close to completion such degree	E
A track record of outstanding research in a relevant area at post-doctoral level or equivalent, commensurate with stage of career.	E
A track record of outstanding refereed publications.	Е
Experience of teaching at UG/PG level.	D
A creative research vision for development, implementation and delivery of successful research projects	E
Excellent administrative and organisational skills.	E
Excellent presentation, communication and interpersonal skills.	Е



Key Responsibilities

The job duties and responsibilities listed below are intended to describe the general nature of the role. The duties and responsibilities, and the balance between the elements in the role, may change or vary over time depending on the specific needs at a specific point in time, or due to changing needs in the department. Jobholders should note that there may not be an immediate requirement to carry out all the activities listed below. This description should be read in conjunction with those contained within the accompanying generic Role Profile.

- Establish own area of independent research, conduct high-quality research, and enhance the Department's strong research profile.
- Write papers and submit for publication in leading research journals and/or leading national/international conference proceedings or other outputs as appropriate to the discipline.
- Identify sources of funding and secure funding for own research programme.
- Supervising PhD students as appropriate.
- Enhance reputation in own subject area by engaging in external activities at national level such as contributions to professional networks, meetings, conferences, societies, professional and/or government bodies, editing journals and refereeing papers.
- Engage effectively in non-academic impact of research, including substantial knowledge or technology exchange and/or public engagement activities, involving a range of partnerships with external organisations.
- Design, plan and implement effective and inclusive teaching and supporting learning activities.
- Teach across a range of modules/units or within a subject area using appropriate teaching, learning support and assessment methods and technologies.
- Develop ideas for improving the learning environment, teaching and/or assessment and feedback methods.
- Engage in professional development in relation to teaching, learning and assessment, including the use of an evidence-informed approach, which utilises the outcomes of research and scholarship, to enhance practice.
- Supervise students undertaking projects, literature reviews and Professional Training.
- Undertake internal roles of responsibility e.g. contribute to committees and
 working parties and perform administrative duties that the University recognizes
 as being properly within the remit of the work of academic staff, as allocated by
 the Head of Department.
- Participate in internal initiatives/events to the benefit of the University e.g. Open Days, Outreach activities, Student placements.

