

Job Description and Person Specification

Last updated: August 2019

JOB DESCRIPTION

Post title:	Associate Professor in Operational Research		
School/Department:	Mathematical Sciences		
Faculty:	Social Sciences		
Career Pathway:	Education, Research and Enterprise (ERE)	Level:	6
*ERE category:	Balanced portfolio		
Posts responsible to:	Head of Mathematical Sciences		
Posts responsible for:	Research Staff (levels 4-5) and postgraduate students		
Post base:	Office-based/Non Office-based (see job hazard analysis)		

Job purpose
<p>To pursue research within Mathematical Sciences, particularly in Operational Research or a closely related discipline. To enhance the research profile of Mathematical Sciences through dissemination of excellent research at international meetings and through obtaining research funding.</p> <p>To contribute to the delivery of high quality teaching in Operational Research, developing BSc and MSc programmes as required. To undertake administrative and leadership duties within Mathematical Sciences, particularly organising events related to Operational Research careers and liaising with external partners, in particular industrial sponsors</p>

Key accountabilities/primary responsibilities	% Time
<p>1. Plan and coordinate a broad research programme and activity in an area of recognised excellence for the University. Act as principal investigator on projects, responsible for defining original research objectives, developing and managing staff, and attracting funding through bids and reputation. Develop and oversee the application of innovative and creative research methodologies and techniques that add to the knowledge/understanding of the subject area.</p>	40 %
<p>2. Develop and sustain a national and international reputation for research and the enhancement of learning and teaching practice by the regular dissemination and explanation of findings through leading peer-reviewed publications, major conferences, or exhibiting work at other appropriate events. Engage in external academic activities in accordance with the School's research strategy and which enhance the School's national/international research profile, e.g. membership of committees of academic bodies, external examining, journal editorships, etc.</p>	

Key accountabilities/primary responsibilities	% Time
3. Manage administrative tasks associated with specified research funding, including risk assessment of programme activities, leading project meetings and preparation of annual reports. Management of procedures required to ensure accurate and timely formal reporting and financial control.	
4. Contribute to the development of teaching and learning activities of the Department. Deliver teaching of the highest quality across a range of modules and to all levels, through lectures, tutorials, practicals and seminars.	40 %
5. Take responsibility for overseeing, developing and promoting fresh teaching and learning approaches and material, which create interest, understanding and enthusiasm amongst students. Directly supervise students, providing expert advice on learning best practice and helping with learning problems. Identify the learning needs of students and define learning objectives. Promote the use of appropriate media to support student learning. Set and mark coursework and exams, providing constructive feedback to students.	
6. Design, develop and deliver an innovative range of programmes and study, sometimes for entirely new courses at various levels. Take responsibility for the quality of the design of existing courses and programmes, continually monitoring, evaluating and revising them to ensure excellence and coherence, identifying areas where current provision is in need of revision or improvement.	
7. Contribute to the development of research, teaching and learning strategies in the School.	
8. Provide expert advice and subject leadership to other staff and students, including research supervision.	20 %
9. Take on appropriate Departmental/ School coordinating roles to advance student academic development, e.g. act as Senior Tutor, Head of Teaching Programme, Coordinator of Programmes at undergraduate or postgraduate levels, etc.	
10. Represent the School/Faculty/University in the disciplinary community externally.	
11. Any other duties as allocated by the line manager following consultation with the post holder.	

Internal and external relationships
<p>The postholder will have the opportunity to be a member of CORMSIS, the Centre for Operational Research, Management Science, and Information Systems. The University of Southampton is a member of the Alan Turing Institute (ATI), and the postholder will have opportunities to engage with ATI. The postholder will be a member of the School (Mathematical Sciences) Forum, Examination Board and of such School and/or Faculty committees relevant to administrative duties.</p> <p>Research priorities will be agreed within the strategic framework of Mathematical Sciences.</p> <p>Teaching and administrative duties will be allocated by the Head of Mathematical Sciences under the advice of Heads of Groups and other members of the Mathematical Sciences School Board (MSSB).</p> <p>New appointees will be assigned a senior colleague to guide their development and aid their integration into the School, Faculty and University.</p>

Special Requirements
To attend national and international conferences for the purpose of disseminating research results.

PERSON SPECIFICATION

Criteria	Essential	Desirable
Qualifications, knowledge and experience	<p>PhD or equivalent professional qualifications and experience in Mathematical Sciences, Operational Research or related area</p> <p>Excellence in research and evidence of significant achievement in Mathematical Sciences</p> <p>Ability to deliver high-quality teaching in Operational Research, including the supervision of MSc students</p> <p>Research expertise or experience closely aligned to CORMSIS.</p> <p>Member of CORMSIS</p> <p>Ability to obtain peer reviewed funding in their research area</p> <p>Extensive track record of teaching at undergraduate and postgraduate level.</p>	<p>Membership of Higher Education Academy</p> <p>Teaching qualification or equivalent</p> <p>Involvement in national and international events</p> <p>Experience in developing teaching programmes at undergraduate and/or postgraduate level</p>
Other skills and Our Southampton Behaviours	Able to apply and actively promote equality, diversity and inclusion principles to the responsibilities of the role.	*Demonstrate the Southampton Behaviours and work with colleagues to embed them as a way of working within the team.
Management and teamwork	<p>Ability to provide leadership in relevant areas of research</p> <p>Proven ability or potential to manage and deliver own modules and team-taught modules</p> <p>Proven ability or potential to coach and support students/tutorial groups</p> <p>Able to contribute to the running of the School by managing significant School processes</p> <p>Able to foster and develop good relationships between own School and the rest of the university.</p> <p>Able to work proactively with senior colleagues to develop cross-Academic Unit and institution cooperation and effectiveness</p> <p>Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development</p>	
Planning and organising	<p>Ability to develop and lead a programme of research of international quality leading to publications in major journals</p> <p>Ability or potential to develop and manage research grant applications to support innovative research</p> <p>Proven ability or potential in the design of modules, curriculum development and new teaching approaches within the School.</p> <p>Able to contribute to the development of research and teaching policy within the Academic Unit</p>	Ability to prioritise and to plan for the effective delivery of research goals

Problem solving and initiative		Ability to seek opportunities to develop joint research programmes with other disciplines or with industry
Communicating and influencing	<p>Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience</p> <p>Track record of presenting research results at group meetings and conferences</p> <p>Track record of delivering lectures and seminars in courses relating to different aspects of Mathematical Sciences</p> <p>Able to support pastoral care, where appropriate</p> <p>Able to provide expert guidance to colleagues in own team, other work areas and institutions to develop understanding and resolve complex problems</p> <p>Able to write up research results for publication in leading peer-viewed journals</p>	<p>Able to provide expert guidance to colleagues in own team, other work areas and institutions to develop understanding and resolve complex problems</p> <p>Able to present research results at group meetings and conferences</p>
Other skills and behaviours	<p>Compliance with relevant Health & Safety issues</p> <p>Able to demonstrate alignment with the University's core values in all areas of work, and champion those behaviours. See Appendix 1</p>	
Special requirements	Ability to attend national and international conferences to present research results	

JOB HAZARD ANALYSIS

Is this an office-based post, with routine hazards?

<input type="checkbox"/> Yes	This is an office-based post with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete/remove the section below.
<input checked="" type="checkbox"/> No	This is an office-based post with some non-routine hazards (eg: contact with the public and/or shift work). Please complete the analysis below.
<input type="checkbox"/> No	This is a non office-based post and has some hazards. Please complete the analysis below.

- HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

ENVIRONMENTAL EXPOSURES	Occasionally (<30% of time)	Frequently (30-60% of time)	Constantly (> 60% of time)
Outside work			
Extremes of temperature (eg: fridge/ furnace)			
## Potential for exposure to body fluids			
## Noise (greater than 80 dba - 8 hrs twa)			
## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below:			
Frequent hand washing			
Ionising radiation			
EQUIPMENT/TOOLS/MACHINES USED			
## Food handling			
## Driving university vehicles(eg: car/van/LGV/PCV)			
## Use of latex gloves (prohibited unless specific clinical necessity)			
## Vibrating tools (eg: strimmers, hammer drill, lawnmowers)			
PHYSICAL ABILITIES			
Load manual handling			
Repetitive crouching/kneeling/stooping			
Repetitive pulling/pushing			
Repetitive lifting			
Standing for prolonged periods			
Repetitive climbing (ie: steps, stools, ladders, stairs)			
Fine motor grips (eg: pipetting)			
Gross motor grips			
Repetitive reaching below shoulder height			
Repetitive reaching at shoulder height			
Repetitive reaching above shoulder height			
PSYCHOSOCIAL ISSUES			
Face to face contact with public		x	
Lone working			
## Shift work/night work/on call duties			

