

Job Description and Person Specification

JOB DESCRIPTION

Post title:	Experimental Officer, Fluid Dynamics and Ecohydraulics		
Faculty:	School of Engineering		
Career Pathway:	Technical and Experimental (TAE)	Level:	4
Posts responsible to:	Technical Manager		
Posts responsible for:	Laboratory Technician		
Post base:	Non Office-based (see job hazard analysis)		

Job purpose
<p>To act as Facilities Manager for the designated laboratories/facilities/areas.</p> <p>Primarily to be responsible for the day-to-day supervision of research, teaching and enterprise activities the Fluid Dynamics and Ecohydraulics Facilities within the School of Engineering. To provide technical, experimental and training support for research and teaching activities, ensuring a safe area of operation within the Laboratories (Energy, Hydrodynamics, Fluid Dynamics and Hydraulics Laboratories). Having a significant input into the continuous improvement of the facilities, working closely with academic members of staff. Responsible for the organisation, maintenance and repair of the laboratory equipment and instrumentation.</p> <p>Act as Named Animal Welfare Care Officer for activities within the Group.</p> <p>To undertake research within specified research projects.</p>

Key accountabilities/primary responsibilities	% Time
1. Provide specialist technical support for the education, research and/or enterprise activity, within the designated laboratories/facilities/ area designing/ field sites, including developing and building specialist machines and equipment and developing solutions, techniques and procedures as required. Working closely and building relationships with academic members of staff and students to improve the facilities.	50-60 %
2. Provide a repair and fault finding service including planned maintenance of equipment and devices within the work environment, advising on future resource requirements	
3. Demonstrate and advise research staff and students on techniques and the use of materials in relation to University projects, assisting in the interpretation of test results. Provide advice and support relating to the use of any equipment or devices and operate as required.	
4. Responsible for budget and data management within defined area. This includes equipment / infrastructure booking systems, maintaining records of usage, and auditing of apparatus / equipment.	
5. Attend internal and external meetings to ensure that work unit issues are represented.	

Key accountabilities/primary responsibilities		% Time
6.	Act as an Area Safety Officer ensuring and maintaining a safe working environment; vetting risk assessments; providing general advice and induction training; ensuring health and safety standards and safe working practices are adhered to by staff and students working in the area; to ensure machines are regularly maintained and are safe to use.	20-30%
7.	Contribute to academic publications in the area of technical specialism. Contribute to writing bids for research funding.	10-15%
8.	Act as Named Animal Welfare Care Officer for activities within the Group. This includes maintenance of fish facilities, attend associated meetings, and ensuring University and Faculty processes related to fish welfare and ethics are followed.	
9.	Investigate models and approaches to test and develop them.	
10.	Any other duties as allocated by the line manager following consultation with the post holder.	5%

Please note: the percentages quoted within the job description are indicative. It is expected that on a weekly/monthly basis the areas of concentration may flex between these duties to ensure a total of 100% contribution.

Internal and external relationships
<p>Close liaison with academic and other technical staff within the School's laboratories, to ensure that joint research and teaching activities are performed with maximum efficiency where shared resources are used.</p> <p>Active involvement in internal and external meetings to provide technical expertise with a solution focused approach,</p> <p>Work with Research Assistants and Fellows with the School's research groups as appropriate.</p> <p>Liaison with funding bodies for new and on-going research projects.</p> <p>Contact with the Home Office as Named Animal Welfare Care Officer for activities within the Group.</p> <p>Other members of the department/University staff.</p> <p>External customers</p> <p>Relevant suppliers and external contacts</p>

Special Requirements
<p>Maybe required to represent the Faculty at a University or national committee.</p> <p>Collaborate with colleagues in other institutions.</p> <p>Driving School vehicles.</p>

PERSON SPECIFICATION

Criteria	Essential	Desirable	How to be assessed
Qualifications, knowledge and experience	<p>PhD or equivalent professional qualification in Engineering or Physical Sciences or related discipline.</p> <p>Substantial experience in a relevant technical field, with proven experience of successfully planning and progressing work activities.</p> <p>Proven experience of using computer systems.</p> <p>Experience of using experimental apparatus and instrumentation.</p> <p>Experience of managing experimental facilities.</p> <p>Experience of using electrical/ electronic systems.</p> <p>Experience of using a wide range of transducers and sensors.</p>	<p>Membership of relevant technical professional body.</p> <p>Knowledge of particular techniques used in hydrodynamics and energy technologies.</p> <p>Knowledge pertaining to the operation of open channel hydraulics and hydrodynamics applicable to open flumes, tanks and pipeflow.</p> <p>Data analysis and technical reporting for scientific publications.</p> <p>Knowledge of “design” softwares such as solid works, CAD</p> <p>Experience of Labview.</p> <p>Design and construction of instruments for laboratory and field measurements.</p> <p>Experience of managing animal welfare / aquatic animals.</p> <p>Experience of liaising with the Home Office in relation to animal welfare.</p> <p>Experience of working in a multidisciplinary environment which may include industrial liaison, academic members of staff and technician colleagues.</p>	Application and interview
Planning and organising	<p>Demonstrable experience of progressing a broad range of activities within professional guidelines and in support of University policy.</p> <p>Experience of successful project management.</p> <p>Developing expertise in organising own research activities to deadline and quality standards.</p>	PRINCE 2 or equivalent project management qualification.	Application and interview
Problem solving and initiative	<p>Track record of applying specialist technical knowledge to analyse complex problems and use in-depth knowledge to address them.</p> <p>Able to develop original techniques and methods.</p>		Application and interview
Management and teamwork	<p>Track record of proactively working with colleagues in other work areas to achieve outcomes.</p> <p>Able to delegate effectively, understanding the strengths and weaknesses of team members to build effective teamwork.</p> <p>Able to contribute to Academic administration.</p>		Application and interview

Communicating and influencing	<p>Demonstrable experience of providing accurate and timely specialist guidance on complex issues.</p> <p>Track record of using influencing and negotiating skills to develop understanding and gain co-operation.</p> <p>Able to present research results at group meetings and conferences</p> <p>Able to write up research results for publication in leading peer-viewed journals</p> <p>Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience</p>		Application and interview
Other skills and behaviours	<p>Understanding of relevant Health & Safety issues</p> <p>Positive attitude to colleagues and students.</p> <p>Experience of managing conflicting priorities and successfully meeting deadlines.</p> <p>Able to present research findings.</p>	<p>Health and Safety qualification eg IoSH or NEBOSH</p> <p>Experience of successfully managing customers' expectations.</p>	Application and interview
Special requirements	Willingness to undertake Health and Safety training specific to role.	Current UK driving licence	Application and interview

JOB HAZARD ANALYSIS

Is this an office-based post?

<input type="checkbox"/> Yes	If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below.
<input checked="" type="checkbox"/> No	If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below. Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder.

- 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		x	
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:	x		
Frequent hand washing	x		
Ionising radiation			
EQUIPMENT/TOOLS/MACHINES USED			
## Food handling			
## Driving university vehicles(eg: car/van/LGV/PCV)	x		
## Use of latex gloves (prohibited unless specific clinical necessity)	x		
## Vibrating tools (eg: strimmers, hammer drill, lawnmowers)	x		
PHYSICAL ABILITIES			
Load manual handling	x		
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)	x		
Gross motor grips	x		
Repetitive reaching below shoulder height			
Repetitive reaching at shoulder height			
Repetitive reaching above shoulder height			
PSYCHOSOCIAL ISSUES			
Face to face contact with public			
Lone working	x		
## Shift work/night work/on call duties			