

Post Details		Last Updated: 16/10/18	
Faculty/Administrative/Service Department	Faculty of Engineering and Physical Sciences/ MES/ CEE		
Job Title	Mechanical Testing Technician		
Job Family	Technical and Experimental	Job Level	3
Responsible to			
Responsible for (Staff)	N/A		

Job Purpose Statement

The post holder will manage the day-to-day operation of the Mechanical Testing Facility, and support associated activities in the Construction Materials Laboratory. They will apply an in-depth knowledge of mechanical testing on a day-to-day basis, providing technical support to grant, contract and personal research work of all academic and research staff, post graduate researchers, and students.

The post holder may be required to support other experimental facilities and projects (at all academic levels), as circumstances dictate and as requested by the Faculty Technical Support Manager.

Key Responsibilities This document is not designed to be a list of all tasks undertaken but an outline record of the main responsibilities (5 to 8 maximum)

1. To carry out duties in respect of specimen and apparatus preparation and assembly, and ensure that materials/equipment/apparatus in the laboratories are maintained, serviced and repaired as required
2. To use modern software to run lab facilities and be able to install basic electronics.
3. To demonstrate equipment and techniques to students, research staff, academics and other technicians.
4. To monitor and maintain a safe working environment in accordance with the latest health and safety legislation.
5. To apply appropriate skills and knowledge in order to make recommendations for improvements to the efficiency and effectiveness of the service offered.
6. To exercise creativity where appropriate to innovative solutions to requirements arising from research; for example, when working with staff on the design and manufacture of components and facilities.
7. To undertake the above activities with minimal guidance from line management; however, more complex problems should be referred to the appropriate member of academic staff, either for advice, guidance or for resolution.

N.B. The above list is not exhaustive.

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.
- Work to achieve the aims of our Environmental Policy and promote awareness to colleagues and students.
- Follow University/departmental policies and working practices in ensuring that no breaches of information security result from their actions.
- Ensure they are aware of and abide by all relevant University Regulations and Policies relevant to the role.
- Undertake such other duties within the scope of the post as may be requested by your Manager.
- Work supportively with colleagues, operating in a collegiate manner at all times.

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.

Elements of the Role

This section outlines some of the key elements of the role, which allow this role to be evaluated within the University's structure. It provides an overview of what is expected from the post holder in the day-to-day operation of the role.

Planning and Organising

- Work will be organised and prioritised by the post holder within an established operating environment, with limited guidance from the Manager of the Mechanical Testing Facility and other senior colleagues.

- The post holder will have the latitude to organise and prioritise work within the daily/weekly work routine to ensure that key deadlines and objectives are met. This will include successfully managing any conflicting demands, possessing a basic awareness of the options available and being able to make effective and appropriate decisions, referring only to line management where appropriate

Problem Solving and Decision Making

- The post will be expected to undertake the activities with minimal guidance from line management; however, more complex problems should be referred to the appropriate member of academic staff, either for advice, guidance or for resolution.
- The post holder is expected to confidently provide advice to all stakeholders and solutions to routine day-to-day problems in their specialist area.

Continuous Improvement

- The post holder is expected to take a pro-active approach to their work, making suggestions for improvements in working methods and facilities and implementing them under the guidance of the Manager of the Mechanical Testing Facility.
- They are also expected to develop new technical skills as appropriate to the developing nature of research within the laboratory, in order that they are able to contribute to the creation of innovative solutions to requirements.

Accountability

- The post holder will be required to order miscellaneous material, parts and consumables and ensure adequate stock levels at an appropriate cost. Failure to do so would affect the students' laboratory experience, the staff and postgraduates' research and external contracts.
- The post holder is expected to also apply their technical knowledge and practical knowledge of the required workshop practices in order to provide advice, training and assistance to staff and students regarding the application of techniques and use of common equipment for preparation and application of standard laboratory techniques. Whilst the work will usually follow an established pattern, the post holder is able to refer to well-defined procedures for guidance when required. The post holder is however, required to recognise when problem/issues should be referred to a senior member of the team or to their line manager for guidance or resolution. The post holder is expected to confidently provide advice and solutions to routine day-to-day problems in their specialist area.

Dimensions of the role

- The post holder will be working as part of a wider team supporting approx. 10 academic and research staff and associated postgraduate and undergraduate students. This may include L1 and L2 Engineering Experiments, L3 Group Design Projects, and L3 & LM Individual Research Projects.
- The post holder does not have any budgetary or supervisory responsibility.

Supplementary Information.

- The post holder will be a member of the appropriate Faculty H&S Forum, in particular representing technical aspects of the Laboratory operations.

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.

Qualifications and Professional Memberships		
HNC/C&G in engineering and manufacture practice, together with several years practical experience		E
Technical Competencies (Experience and Knowledge) This section contains the level of competency required to carry out the role (please refer to the Competency Framework for clarification where needed and the Job Matching Guidance).	Essential/ Desirable	Level 1-3
Experience of mechanical testing	E	3
An understanding of relevant Health and Safety requirements and procedures	E	2

Knowledge and experience of maintenance of and fault finding in equipment	E	3
Ability to work independently and with minimal supervision	E	3
Experience of working in a mechanical workshop	D	1
Knowledge and experience of strain measurement techniques, especially digital image correlation	D	2
Knowledge and experience of mechanical design	D	2
Special Requirements:	Essential/ Desirable	
Core Competencies This section contains the level of competency required to carry out this role. (Please refer to the competency framework for clarification where needed). n/a (not applicable) should be placed, where the competency is not a requirement of the grade.		Level 1-3
Communication		3
Adaptability / Flexibility		2
Customer/Client service and support		2
Planning and Organising		2
Continuous Improvement		2
Problem Solving and Decision Making Skills		2
Managing and Developing Performance		1
Creative and Analytical Thinking		2
Influencing, Persuasion and Negotiation Skills		1
Strategic Thinking & Leadership		n/a
<p>This Job Purpose reflects the core activities of the post. As the Department/Faculty and the post holder develop, there will inevitably be some changes to the duties for which the post is responsible, and possibly to the emphasis of the post itself. The University expects that the post holder will recognise this and will adopt a flexible approach to work. This could include undertaking relevant training where necessary.</p> <p>Should significant changes to the Job Purpose become necessary, the post holder will be consulted and the changes reflected in a revised Job Purpose.</p>		
Organisational/Departmental Information & Key Relationships		
<p><u>Background Information</u></p> <p>The Faculty of Engineering and Physical Sciences is built on the core engineering disciplines of aeronautical engineering, civil engineering, chemical engineering, electronic engineering and mechanical engineering, together with the core scientific disciplines of computing, mathematics and physics. Within these fields we enjoy a reputation for excellence in research and teaching.</p> <p>The post holder will be working as part of team supporting approximately 10 academic and research staff and associated postgraduate and undergraduate students. This commitment may include helping with Level M Individual Projects and MSc Individual Research Projects.</p>		

Department Structure Chart

Relationships

Internal

- The post holder will assist staff and postgraduate students in design and manufacture of apparatus for project.
- The post holder will communicate with other users of the University services.

External

- The post holder will liaise with external contractors and suppliers for the provision and price of services and goods.
- The post holder is also the main point of contact for mechanical assistance within mechanical testing by external customers.