

Mechanical Workshop Technician

REQ231010

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Job Description

Job Grade: Technical Services Grade 5

Job Purpose

Reporting to the Mechanical Services Workshop Supervisor the post holder will bring specialist skills in machining and fitting expertise to the Mechanical Services Workshops

You will be complementing a small team of highly skilled technical staff in supporting Undergraduate (UG) and Postgraduate (PG), and Research and PHD projects within the School by manufacturing their requested mechanical parts to a very high standard.

The role holder will provide technical support in the form of advice of manufacturing principles. In addition, the role holder will be expected to have some experience NC milling, hand fitting and assembly practices including the fabrication of components. The post holder will also provide specialist support to academic colleagues engaged in research activities helping in the design and manufacture of proof of principle prototypes.

The successful candidate will take day to day responsibility for the production and coordination of both student and research projects ensuring that components are manufactured to a high standard and in a timely manner. You will oversee the technical instruction and support in helping with the design, development, build, test and calibration of mechanical equipment, dedicated instrumentation, and research rigs.

You should be conversant with the review and preparation of NC programmes and familiar with windows-based programming, Cad drawings ensuring the manufacturing processes and materials are used are appropriate.

All technical staff will support, promote, and participate in the University's people strategy, in your staff development and continuous professional development (CPD) including succession planning.

All professional and support staff are responsible for providing students with the best learning experience possible. Providing this learning experience is pivotal to our continued success in providing our graduates with the foundations needed to build a productive and rewarding career.

Job Duties

- Use all conventional workshop machinery and equipment for the manufacturing various parts for students and academic research projects from CAD drawings or sketches.
- You will review the students' technical drawings, CAD models at the design stage, to support students in their initial design stage and delivering a complete technical service supporting student, research, and staff project activities throughout the school.
- To Identify and make suggestions to the workshop supervisor for the requisition and ordering of miscellaneous materials, tools, parts and consumables and maintenance of adequate stock levels. To ensure that these items are requested in a timely manner so that stocks levels are maintained adequately for the manufacture of parts for student projects

- Engage with student, researchers, and staff to help them understand the manufacturing design constraints, including materials selection and manufacturing processes.
- Providing general advice to both staff, researchers, and students in relationship to material, component selection, sources of information, design, suitability of manufacture
- As part of the PUWER regulations, you will be responsible for carrying out the regular routine maintenance of plant and equipment testing and fault diagnosis in your own area and support other areas in this activity when required. You will ensure the safe operation of equipment, and machinery, wherever your work is undertaken.
- To maintain and support the 5s philosophy in keeping your work area and the workshop in a clean and safe environment to work in.
- Identify improvements to workshop processes, machinery and workflow, and general efficiency gains.
- You will ensure that you are familiar with the current workshop risk assessments and standard operating procedures, specific to the equipment within the mechanical workshop and any other areas you may be working in.
- You will work with student and staff to help them produce their individual risk assessment for their projects as and when required.
- Ensure you are compliant with COSHH, Health and Safety at Work legislation and the University's compliance policies.
- Participate fully in the School's PDR (Personal and Development Review) Scheme, identifying and agreeing developmental opportunities for personal and professional development and in response to changing needs within the School.
- Work with your supervisor to enhance the departments efficiency by undertaking any relevant training requirements that are needed to enhance your own development and skills for you to be more effective in supporting Undergraduate (UG) and Postgraduate (PG), and Research and PHD projects within the School, and assist your supervisor with the development of the school technician training matrix.

Wider Technical Duties & Responsibilities

- To work closely with the other technicians and supervisors to improve working practices (Best Practice) to ensure that service levels are identified and reviewed effectively.
- To oversee and if necessary, undertake the manufacture, assembly and installation of equipment and rigs from drawing and verbal instructions for research staff.
- To assist with technical duties in other areas, if requested by the Technical Resource Manager, or the Operations Manager, due to variations in workload, staff shortages or temporary re-organisations as required to ensure business continuity.
- Liaise with other University Departments and outside contractors with regard to layout, installation, modification, upgrade, repair of plant and equipment.
- To work closely as a member of the workshop team to support the Technical Resources Manager in planning the future development of the workshop areas and teaching activities, identifying opportunities for improvements.
- The requisition miscellaneous materials, parts and consumables to ensure adequate maintenance of stock levels.
- To perform any duties as required by the mechanical workshop supervisor and/or technical resource manager.

Behavioural Expectations

- To show and maintain an active approach to CPD (Continual Professional Development). Participate fully in the School's PDR (Personal and Development Review) Scheme, identifying and agreeing developmental opportunities for personal and professional development and in response to changing needs within the School.
- To support colleagues in the workshop team; to develop broader skills to deliver taught/ supervised sessions throughout the workshop and campus wide satellite facilities supported by the Wolfson School thus supplementing the School's succession plan.
- To fully engage with School life, by participating in open days, visit days and outreach activities. Participation will include but not be restricted to, the setting up & dismantling of events, giving demonstrations and act as a Wolfson School ambassador giving help and guidance.
- A positive "can do" attitude to enable students to achieve their goals.
- A flexible approach to working hours is required due to the occasional evening and weekend working requirements of the position.

Performance Measures

- Performance measures will be used to ensure delivery and performance are maintained. The PDR process will outline specific measures; however, the following examples could be used in the first instance.
- To satisfactorily pass Health and Safety Audits and House Keeping Audits within the specific area of responsibility.
- To always work and liaise with students in the right manner and approach to be supportive, informative, and understanding to give them the best experience working with the technicians in Manufacturing Services Department.
- Student Feedback scores (Student feedback from taught sessions, project sessions)
- Tasks, quality, and efficiency
- Safety monitoring
- Behavioural based monitoring
- Continual Personal Development (Expectation of 5 days per year)
- Ongoing planned development of each specific area. (Learning, Equipment, Process)
- Efficient use of flexible working within the area of responsibility to support providing and efficient service.
- Skills development, Multi-functional ability
- Time keeping and absence

Points to Note

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

Special Conditions

Teaching and mechanical workshops and Laboratories are located in several buildings across the Wolfson School on the Loughborough University Campus. Due to the specialist nature of this position, there is a large proportion of autonomy in performing this role and therefore significant self-management will need to be demonstrated.

The workshops and lab areas normally remain open and appropriately staffed until 6pm to accommodate timetabled classes and during project periods to support students effectively.

There may be opportunities for accompanying students on industrial visits, however this is not a primary job function, therefore will be by volunteering only.

The Wolfson School has vehicles used to transport equipment across campus; therefore, volunteering to become a registered driver will be welcomed.

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

Organisational Responsibility

Reporting structure:

- Manufacturing Services Workshop supervisor (direct line manager).
- Technical resource manager (line manager for the technical team).
- Operations manager (senior line manager for all staff).
- Dean of school

Person Specification

Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

- 1 – Application
- 2 – Test/Assessment Centre/Presentation
- 3 – Interview

Essential Criteria

Area	Criteria	Stage
Experience	Served a recognised mechanical engineering apprenticeship or equivalent with substantial experience in an engineering environment.	1,3
	Ability to use a full range of workshop / toolroom conventional and NC machines tools including fitting and fabrication.	1,2,3
	Ability to use CAD for the production of component drawings.	1,3,2
	Proven track record of explaining engineering principles and testing the understanding of an inexperienced audience.	1,3
Skills and abilities	Previous experience working with apprentices and / or students / researchers with the ability to work as part of a team with excellent interpersonal skills in a technical service providing environment.	1,3
	Proven ability to apply engineering principals to the design specifications, operating procedures for the manufacture of new equipment.	1,3

	Proven track record of manufacturing components and integrating them to produce assemblies for specialized research projects.	1,3
	High level of computer-based skills including use of MS Office, Outlook, Excel etc. and the ability to quickly learn bespoke software packages.	1,3
Training	Evidence of Continual Professional Development (CPD) together with a willingness to undertake training as appropriate and to adopt new procedures in line with the changing needs of the department and the University	
Qualifications	City & Guilds or ONC, BTEC Higher National Certificate / Diploma in an appropriate engineering discipline	3
Other	Evidence of working within a Health & Safety regulatory environment with proven knowledge and a working understanding of current Health, Safety, PUWER, COSHH and Environmental policies and procedures	1,3
	Commitment to observing the University's Equal Opportunities policy at all times.	3

Desirable Criteria

Area	Criteria	Stage
Experience	Wood machine experience and the use of associated machines.	1,3
	Waterjet cutting and the programming of these type of equipment	1,3
	Experience in MIG, TIG, and MMA welding.	
Skill and abilities	Highly professional at all times with the ability to work with efficiency and accuracy while prioritising workload to meet tight deadlines	1,3
	Experience or understanding of 3d printing additive manufacture	1,3
	Experience of bacterial testing and processes	1,3
Qualifications	AET (Award in Education and Training)	1

Conditions of Service

The position is **FULL TIME** and **OPEN-ENDED**. Salary will be on **Technical Services** Grade 5 £27,979 to £32,982 per annum a starting salary to be confirmed on offer of appointment. Please Note that we are also offering a market supplement for candidate who can demonstrate they are currently on a higher salary which could increase the top of this band to £37,099. Subject to annual pay award.

The appointment will be subject to the University's normal Terms and Conditions of Employment for Academic and Related staff/Operational and Administrative staff, details of which can be found [here](#).

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which are available at <http://www.lboro.ac.uk/services/hr/a-z/family-leave-policy-and-procedure---page.html>.

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: <http://www.lboro.ac.uk/services/hr/a-z/childcare-information---page.html>)

In addition, the University is supportive, wherever possible, of flexible working arrangements.

We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>