

Technical Tutor (Engineering Machine Shop)

Full-time, open-ended.

Job Ref: REQ250944

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Loughborough University's Technician Commitment

Loughborough University is a signatory of the national Technician Commitment Scheme which pledges to ensure the visibility, recognition, career development and sustainability of their technical staff. The successful candidate will therefore be joining a thriving and visible community of staff with opportunities for collaboration and networking, and a clearly defined career pathway against which they can map and plan their own professional development and career progression.

School summary

The School of Design and Creative Arts is seeking a new colleague to undertake a Technical Tutor role, primarily within the Engineering Machine Shop based in the Design School building. This is an intensive tutoring post that will deliver skills, knowledge and practice in support of project briefs and assessment tasks to significant student numbers. The post holder will work closely with Academic and Technical staff in developing high quality pedagogic approaches in facilitating the taught programmes, and to ensure outcomes of high standard.

The School of Design and Creative Arts delivers design education across a breadth of undergraduate programmes including the BSc Product Design & BA Design industrial Design. In addition, there are masters offers in UX, Service Design and Integrated Industrial Design. Programmes actively engage with industry via external projects, industry links, live projects and student competitions and seek to emphasise the real-world impact design can have. Programmes rank amongst the best in the country. Fashion and Textiles, Product Design and Graphic Design in the School of Design and Creative Arts at Loughborough University rank 1st in the Guardian University Guide 2023. Art and Design at Loughborough University ranks 2nd in the Times Good University Guide 2023, and the Complete University Guide 2023. Results of the 2021 Research Excellence Framework show that 100% of Loughborough University's research impact in Art and Design is now rated as 'world-leading' or 'internationally excellent'.

Job Description

Job Grade: Grade 6, Technical Teaching and Specialist (TTS)

Job Purpose

The postholder will support the delivery and enhancement of high-quality technical teaching and learning activities within the school, ensuring effective equipment and resource management in technical teaching facilities and managing technical staff, where required. This role is critical in creating a safe, compliant, and engaging environment for students and staff, with a focus on providing practical instruction, managing teaching facilities, and fostering continuous professional development for technical staff in their teaching activities.

The successful candidate will be a highly motivated, collegiate individual, with significant practical Engineering Machine Shop experience to provide technical tutoring, supervision and skilled mechanical technical support to undergraduate and postgraduate students, academic staff and other technical staff.

Job Duties

- Provide substantial Engineering Machine Shop technical tutoring and professional mechanical technical advice to undergraduate and postgraduate students during timetabled and non-timetabled sessions.
- Monitor the attendance and development of students
- To assess both practical and theoretical student project work.
- Coordinate technical operations in the Engineering Machine Shop, ensuring that teaching facilities and equipment are maintained, and updated as required, to provide an effective learning environment for students.
- Implement and enforce Health and Safety regulations within teaching facilities you have responsibility for, ensuring that staff, students, and equipment operate in compliance with safety standards and escalating issues when necessary
- Oversee the procurement and maintenance of equipment, including lathes, milling machines, surface grinders and consumables for your specialist area, ensuring resources are available, functional, and compliant with School guidelines and budget constraints.
- Ensure that complex technical information is communicated clearly and engagingly to diverse audiences and maintain effective communications with colleagues.
- Coordinate the development and maintenance of documentation, such as lesson plans and instructional materials to ensure effective and consistent delivery of technical teaching and learning activities.
- Collaborate with academic staff to contribute to curriculum design and the enhancement of technical activities required to deliver module and programme aims.
- To manufacture, assemble and install equipment in support of research projects, using Engineering Machine Shop and bench fitting skills.
- To support CAM / CNC machining and 3D printing activities and maintenance of associated equipment and facilities.
- Provide technical support for student outreach activities, including open days, visit days and other outreach activities, ensuring the effective presentation of the school's learning and teaching capabilities.
- Line manage and/or supervise the work of technical staff at lower grades who work in the Engineering Machine Shop, fostering a collaborative work environment in line with learning and teaching objectives. Escalate staffing issues to the Senior Technical Officer as required.

- Identify technical teaching issues and staff-related concerns that arise, escalating them to the Senior Technical Officer when appropriate and offering informed solutions.
- Engage in role-specific training and development, such as teaching qualifications, to ensure continued personal and team growth and development.
- To work within task-based teams of staff (e.g., on exhibition assembly and dismantling)
- Undertake other general tasks and duties, commensurate with the level of the position, as directed by the Line Manager.

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

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 observe the University's Equality & Diversity Commitment and equality legislation at all times. Our Commitment is detailed here: <https://www.lboro.ac.uk/equity-diversity-inclusion/our-commitment/>.

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

Organisational Responsibility

Reports to: Senior Technical Officer

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 – Presentation
- 3 – Interview

Essential Criteria

Area	Criteria	Stage
Experience	Experience of providing teaching and learning support to students, for example theoretical teaching and practical demonstrations & instruction (including in the safe use of equipment).	1,2,3
	Experience of applying and co-ordinating relevant processes and techniques used to support the delivery of the school's learning and teaching outcomes, including working with conventional machine tools/hand tools within an Engineering Machine Shop environment.	1,3
	Experience of running the effective delivery of teaching workshops and other facilities.	1,3
	Experience of working effectively and collegiately with internal and external stakeholders at all levels.	1,3
	Experience of working with other technical colleagues to ensure the effective and safe operation, maintenance and upgrade of teaching equipment.	1,3
	Experience of ensuring that correct Health, Safety and wellbeing procedures and practices are being followed by all stakeholders working in your specialist areas.	1,3
	Experience of ensuring compliance with relevant standards and regulations including PUWER,	1,3
	Experience of using office-based and specialist software including email & PowerPoint.	1,3
Skills and abilities	Demonstrable technical skills in the techniques, technologies, processes, and applications associated with the teaching specialisms.	1,2,3
	Ability to use good communication and interpersonal skills to work effectively with a range of stakeholders.	1,2,3
	Ability and passion for communicating specialist knowledge and complex information in an effective and engaging way to a range of audiences, in Engineering Machine Shop and associated techniques.	1,2,3
	Ability to contribute to the assessment of student work.	1,3
	Ability to work efficiently and accurately, planning and prioritising your own workload to deliver tasks within agreed timescales.	1,3
	Ability to work independently, apply your own initiative, be self-motivated and lead own workload, projects and teams.	1,3
	Ability to establish, develop and maintain effective teaching related documentation.	1,2,3
	Ability to provide input into curriculum design and/or the design of technical activities to support teaching.	1,3

	Ability to liaise with School leadership teams and academic colleagues to effectively translate learning and teaching aims into technical outputs.	1,3
Training	Proven commitment to ongoing professional development, including mandatory and role-specific training.	1,3
	Willingness to take on wider University roles on behalf of the School/Service, such as Health & Safety or other roles.	1,3
Equity, Diversity and Inclusion (EDI)	Commitment to understanding EDI challenges and observing University EDI guidelines.	1,3
Qualifications	Level 4, or equivalent qualification, in a relevant subject, including but not limited to: Certificate of higher education (CertHE), Higher apprenticeship, Higher national certificate (HNC), Level 4 award, Level 4 certificate, Level 4 diploma, Level 4 NVQ <i>While a Level 4, or equivalent, qualification is preferred, we recognise the value of practical and 'real-world' knowledge and expertise, therefore candidates with a strong industry track record will be considered based on their demonstrated skills, achievements, and contributions to the field.</i>	1
	Willingness to work towards a teaching qualification	1,3
Other	Willingness to provide support for events, such as University open and visit days (occasional out of hours working may be requested).	1,3

Desirable Criteria

Area	Criteria	Stage
Experience	Experience of co-ordinating or supervising the work of others to achieve successful outputs and outcomes.	1,3
	Experience of carrying out or designing and manufacturing of mechanical instrumentation and equipment to support Research and Innovation activities.	1,3
	Previous experience of working/managing in a toolroom, manufacturing or research and development workshop.	1,3
	Experience in the use of Computer Numerical Control (CNC) machine tools and 3D Printing.	1,3
	Served a recognized Engineering Machine Shop/Mechanical Engineering Apprenticeship.	1,3
	Experience of using office-based and specialist software including SolidWorks or other CAD / CAM related	1,3
	Experience of instructing/teaching apprentices or students.	1,3
Skills and abilities	Ability to manage budgets	1,3
	Metal fabrication, woodworking and plastic moulding skills and knowledge.	1,3
Training	Instructional techniques/teaching qualification or certificate	1,2,3
Qualifications	Mechanical Higher National Diploma (HND) or Undergraduate Degree	1

Other	Current driving license (to meet University requirements for driving University/hired vehicles).	1,3
	Willingness to travel for work purposes, such as site visits, field trips, visiting suppliers, professional development and external training.	
	First Aid at Work Certificate.	1

Conditions of Service

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which can be found at: <http://www.lboro.ac.uk/services/hr/support/>

The University offers a wide range of employee benefits, which can be found at: <http://www.lboro.ac.uk/services/hr/benefits/>

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme, which can be found at: <https://www.lboro.ac.uk/services/hr/topics/childcare-support/>

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. Further information on Athena SWAN can be found at: <http://www.lboro.ac.uk/services/hr/athena-swan/>