UNIVERSITY OF WARWICK

Job Description

Job title	Precision Engineer
Department	School of Engineering
Grade	FA5

Job purpose (a brief summary of the role)	To provide technical support for undergraduate and postgraduate students from across the School of Engineering. To provide technical support for research to academics and research personnel. To ensure a range of laboratory and teaching equipment is properly maintained
Duties and responsibilities	1. The use of current CAD/CAM packages, IT techniques, conventional and CNC universal milling, centre lathe turning precision grinding. Instrument fitting and precision hand fabrication in order to design, manufacture and commission specialized research and experimental apparatus to high degrees of accuracy to support academic research. 2. Consultation with and advice to academics and students on the use of, design, manufacture of apparatus. Dealing with students' technical requirements, including health and safety 3. Provide timetabled expertise with regard to design and manufacture seminars to advise students on feasibility of their designs and materials used. To teach students manufacturing methods using a range of workshop equipment. 4. Liaison with academic staff, students and researchers in order to develop ideas relevant to research requirements. 5. Identification of suitable specialized components and equipment for the use in conjunction with research apparatus. Outsourcing, purchasing (within budget controls) and integration of same in order to allow researchers to achieve targets and deadlines. 6. Guidance and supervision of students and inexperienced staff in all technical areas within the School with regard to the manufacture of associated research apparatus in order to co-ordinate manufacturing and assembly requirements. 7. To provide health and safety supervision to staff and students in workshops and laboratories, include risk assessment, safe schemes of work, and COSHH. The above is indicative and not an exhaustive list. The postholder will be expected to undertake other duties as reasonably directed by the Technical and Operations Management team or other key members of staff. Due to the nature of this role 100% onsite working is required. There may be an occasional need to work non-standard/weekend hours (eg open days).

Person Specification

The Person Specification focuses on the essential and desirable knowledge, skills, experience and qualifications required to undertake the role effectively. This is measured by (a) Application Form, (b) Test/Exercise, (c) Interview, (d) Presentation.

Essential Criterion No.	Essential Criterion Description	Measured by
E1	Successful completion of an Engineering Apprenticeship or equivalent training/experience (e.g.: NVQ level 4; A-levels in Maths and/or a relevant science subject, and/or relevant experience at a high level in a similar work environment).	A
E2	Significant experience in a tool making or engineering development environment.	A,B & C
E3	A high level of skill and knowledge in a wide range of disciplines including computer numerical control (CNC) milling and turning, fitting, fabrication, various welding techniques and general workshop processes.	A,B & C
E4	Proficient in Microsoft Office, specialist engineering software, and computer-based equipment operation, including design and drawing skills using various state of the art CAD/CAM packages.	A & C
E5	Able to evidence experience of working independently as well as part of a team effectively.	A & C
E6	Strong time management and organisational skills with the ability to work on own initiative and coordinate multiple projects with flexibility. Forward planning schedules, prioritisation of tasks, decision making and working under pressure to strict deadlines to meet key milestones.	A,B & C
E7	Current knowledge of Health and Safety legislation, standards and procedures (e.g.: COSHH, calibration of equipment) and awareness of specific legislative requirements (e.g.: British Standards, to ensure compliance in work areas and safe working practices.	A & C
E8	Ability to interpret complex instructions, analyse requirements, and implement detailed specifications, with strong attention to detail and accuracy.	A,B & C
E9	Excellent communication skills including the ability to communicate effectively in English, both verbally and in writing, with a wide range of stakeholders and customers, including communicating technical information to a non-technical audience.	A & C

Desirable Criterion No.	Desirable Criterion Description	*Measured by*
D1	HNC/HND in an Engineering discipline.	A
D2	Awareness of budgetary expenditure with ability to identify and obtain quotations for new equipment and services to meet research and project requirements and raise purchase orders. while adhering to budgetary constraints.	A & C