

## Job Description

### Technician ( Mechanical Engineering )

<b>Salary:</b>	Grade 5
<b>Contract:</b>	Full time, ongoing
<b>Location:</b>	Canterbury Campus
<b>Responsible to:</b>	Technical Manager (Mechanical Engineering)
<b>Job family:</b>	Technical

#### Job purpose

Working as part of a wider technical support team, the role of Technician (Mechanical Engineering) focuses on providing comprehensive, immediate, and specialized support in mechanical engineering, particularly in manufacturing, CNC and traditional machining, materials testing, robotics, and automation. The Technician will deliver timely and effective specialized research and teaching support to students, academic and research staff, and visitors within the Division.

The Technician will work within a wider team of technicians but will be part of a sub-team under the line management of the Technical Manager. This sub-team is dedicated to supporting a range of mechanical engineering facilities. These facilities are predominantly used by undergraduate mechanical engineering students, but the Technician will also provide support to students across all engineering disciplines and to those outside of the school. Additionally, the Technician will play a crucial role in supporting postgraduate research students, assisting with their advanced research projects and ensuring they have access to the necessary technical resources and expertise.

Furthermore, the Technician will collaborate with academic staff on research projects, contributing technical expertise and support. This includes assisting with experimental setups, data collection, and analysis.

This role requires advanced technical skills and knowledge in mechanical engineering, ensuring the effective, safe, and efficient use of resources.

#### Key accountabilities

The following are the main duties for the job. Other duties, commensurate with the grading of the job, may also be assigned from time to time.

- **Specialist Support:** Use in-depth technical knowledge and experience to provide specialist support in manufacturing, CNC and traditional machining, materials testing, robotics, and automation. Work with limited guidance and instruction, setting and maintaining technical standards.
- **Technical Equipment Operation:** Operate complex technical equipment related to CNC and traditional machining, robotics, and automation. Ensure equipment is maintained, serviced, and repaired. Diagnose and rectify faults, ensuring operational availability and service levels.
- **Materials Testing:** Conduct materials testing and analysis, ensuring accurate data collection and interpretation. Provide recommendations based on test results to support research and teaching activities.
- **Robotics and Automation:** Support the implementation and maintenance of robotic and automated systems. Provide training and demonstrations on the use of these systems to staff and students.
- **Safety and Compliance:** Establish and maintain a safe and compliant working environment. Understand, promote, and apply relevant legislation and guidance, including COSHH, risk assessments, and departmental health and safety protocols.
- **Technical Training:** Draft and provide inductions, training, and demonstrations of specialist techniques in manufacturing, CNC and traditional machining, materials testing, robotics, and automation. Ensure compliance with safety and regulatory guidelines.

- **Resource Management:** Assist with purchasing specialist technical products and services. Use knowledge and experience to provide recommendations and quotations, advising on specification and price. Support budget holders to deliver effective financial controls and monitor resource usage.
- **Collaboration and Communication:** Liaise with staff across the wider University and external service providers to ensure detailed technical requirements are understood and met. Present technical information within own area of expertise at meetings and conferences.

## Key challenges and decisions

The following provide an overview of the most challenging or complex parts of the role and the degree of autonomy that exists.

- **Specialist Advice and Support:** Use theoretical knowledge and practical experience to provide professional specialist advice and support in mechanical engineering fields such as manufacturing, CNC and traditional machining, materials testing, robotics, and automation.
- **Health and Safety:** Establish and maintain health and safety in the work area. Review activities and procedures, undertaking inductions and presentations to ensure a safe working environment.
- **Troubleshooting:** Troubleshoot faults on high-value, high-demand resources. Work independently and as part of a team, managing high-pressure situations to meet short timeframes.
- **Technical Teaching:** Support divisional teaching activities, providing practical technician-led teaching where necessary

## Internal & external relationships

**Internal:** Staff at all levels within the academic division and professional services areas; students

**External:** Specialist equipment and software suppliers; consultants; contractors; visitors and visiting academic researchers; alumni

## Health, safety & wellbeing considerations

This job involves undertaking duties which include the following health, safety and wellbeing considerations:

- Regular use of Screen Display Equipment
- Repetitive limb movements
- Noisy working environment (above 80d)
- Working with machinery (please specify any vibration hazards)
- Working with chemicals (inc. requirement to wear latex gloves and inc. work with CO<sub>2</sub> or N<sub>2</sub> gasses)
- Potential exposure to asbestos or other dusts
- Biological Agents/Scientific Hazards (experiments/lasers etc, and waste/sewage)
- Working at heights
- Prolonged physical/manual work/Manual handling (inc. human beings)
- Working in isolation
- Conflict resolution
- Pressure to meet important deadlines such as might be inherent in high profile projects
- There may be a requirement to work evenings and weekends

## Person specification

The person specification details the necessary skills, qualifications, experience or other attributes needed to carry out the job. Applications will be measured against the criteria published below.

Selection panels will be looking for clear evidence and examples in an application, or cover letter (where applicable), which back-up any assertions made in relation to each criterion.

### Essential Criteria:

- **Educational Background:** Educated to A level in Mechanical Engineering or a closely related subject, or equivalent vocational qualifications. (A, I)
- **Technical Support Experience:** Proven experience of working in a technical support role within mechanical engineering, specifically in areas such as manufacturing, CNC and traditional machining, materials testing, robotics, and automation. (A, I)
- **Theoretical Knowledge:** Excellent theoretical knowledge in mechanical engineering, particularly in manufacturing processes, CNC machining, materials science, and automation technologies. (A, I, T)
- **Equipment Operation and Maintenance:** Experience operating and maintaining complex mechanical engineering equipment, including CNC machines, traditional machining tools, and robotic systems. (A, I)
- **Safety Regulations:** Excellent working knowledge of safety regulations, legislation, and procedures relevant to mechanical engineering, such as Risk Assessment, COSHH, and machinery safety standards. (A, I)
- **Procurement Support:** Experience in supporting the procurement of high-value, specialist mechanical engineering equipment. Providing specialist equipment and technology advice to others. (A, I)
- **Budget Management:** Experience managing or having oversight of budgets related to mechanical engineering projects or equipment. (A, I)
- **Communication Skills:** Excellent verbal and written communication skills, including clear and effective facilitation and presentation skills, and the ability to produce clear and concise technical documentation. (I)
- **Problem-Solving Skills:** Excellent troubleshooting, advanced problem-solving, and diagnostic skills, with an ability to assess highly technical mechanical engineering problems and implement solutions within own expertise. (A, I)
- **Interpersonal Skills:** Good interpersonal skills with the ability to liaise independently with students and staff at all levels and build and maintain good working relationships with staff in many different departments. (I)
- **Training Experience:** Experience of coaching or training others in mechanical engineering techniques and equipment use. (A, I)
- **Organizational Skills:** Organized with the ability to prioritize a wide range of workload with competing priorities in a mechanical engineering context. (A, I)
- **Initiative and Teamwork:** Ability to work under own initiative but also collaboratively within teams, particularly in mechanical engineering projects.(I)
- **Technical Specialisms:** Demonstrate significant experience in the further technical specialisms detailed in this role, particularly in manufacturing, CNC and traditional machining, materials testing, robotics, and automation. (A, I)
- **Commitment to Vision and Values:** Firm commitment to achieving the University's vision and values, with a passion for a transformative student experience and multidisciplinary, impactful research in mechanical engineering. (I)
- **Equality, Diversity, and Inclusivity:** Commitment to deliver and promote equality, diversity, and inclusivity in the day-to-day work of the role. (I)

Assessment stage: A - Application; I - Interview; T - Test/presentation at interview stage