Job Title: Mechanical Workshop Technician

Department/ Section: Department of Physics, Mechanical Instrumentation Workshop

Job Family: Technical Services, Level 3b

Location: South Kensington Campus

Reporting To: Mechanical Instrumentation Workshop Manager

Working relationships: Academic and technical staff, research staff, students, support staff and component and material suppliers

Working Hours: Not normally less than 35 hours per week

Length of contract: Permanent/Open ended

Summary of Post

The successful candidate will join the Department of Physics Mechanical Instrumentation Workshop team. He or she will be expected to manufacture components and contribute to the assembly, installation and commissioning of equipment which forms apparatus used for research and teaching. The successful candidate will be expected to contribute significant design and precision manufacturing skills in the Department's research and teaching programme.

Duties of the Post:

- Development and construction of components and apparatus for the Department's experimental and teaching programme. The ability to work to tight tolerances and high manufacturing quality is essential.
- Construction and modification of apparatus and instruments from own designs and from drawings and verbal instructions.
- To discuss and evaluate the application and performance of pieces of specialised engineering equipment.
- Contributing to the design, development and construction of research equipment.
- Advise and guide academic, research and technical staff in the development and use of complex equipment.
- Advise and guide academic, research and technical staff on best or alternative solutions to their engineering requirements.
- Use technical knowledge and experience to conceptualise and interpret the requirements of academic customers.
- Advise on purchasing of components/materials for equipment construction.
- Operation of manual and computer controlled machine tools.
- Plan and prioritise own and others’ work activities.
- Monitor and maintain a safe workshop/laboratory environment in accordance with Health and Safety procedures.
The responsibilities listed above are not to be considered an exhaustive list and the appointee will be expected to undertake such other duties as may reasonably be expected.

**General Workshop Responsibilities**

- To make a major contribution to the technical excellence and successful performance of the Department’s research programme with development of new and improved equipment.
- To perform duties in a competent manner commensurate with qualifications and experience, to communicate effectively with academic, research and technical staff and outside suppliers and to attend meetings to establish professional contacts and gather relevant information.
- To advise and support research staff on the implementation of experimental protocols.
- To keep accurate and comprehensive design records.
- To ensure that all working practices comply with current safety legislation.

**Additional Responsibilities**

- To undertake appropriate administrative tasks.
- To attend relevant meetings.
- To undertake any necessary training and/or development.
- To maintain safe workplace practice and procedures in accordance with the requirements of Health and Safety legislation.
- To maintain an up-to-date knowledge of relevant statutory Health and Safety legislation and recommendations and attend safety training as required.
- Any other duties which may arise commensurate with the grade of the post as directed by line manager / supervisor.

The successful candidate will also comply with all relevant College policies, including Data Protection, Financial Regulations, Equal Opportunities Policy, Promoting Race Equality Policy, Health and Safety Policy, Information Systems Security Policy and Intellectual Property Rights and Register of Interests Policies.

**Job descriptions cannot be exhaustive and so the post holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.**

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to adhere to the principles set out in our Equal Opportunities in Employment Policy, Promoting Race Equality Policy and Disability Policy and all other relevant guidance/practice frameworks.
Person Specification

Job Title: Mechanical Workshop Technician

Department/Section: Department of Physics, Mechanical Instrumentation Workshop

Qualifications: Served a recognised apprenticeship and attained a Higher National Certificate, City and Guilds or equivalent level of qualifications and experience

Knowledge and Experience

Essential

- A background and proven skills in the manufacture of high-precision components using various manual machine tools.
- Experience of the design and construction of complex mechanical systems within research or engineering development instrumentation

Desirable


Skills and Abilities

- Ability to work individually and as part of a multidisciplinary team.
- Well developed analytical and problem solving capability to devise original design solutions for research equipment development.
- Well developed communication and interpretive skills to enable the identification, understanding and realisation of research staff/student requirements.
- Ability to advise research staff on best or alternative solutions to their engineering requirements.
- Ability to discuss and evaluate the application and performance of pieces of specialised engineering equipment.
- Advise on purchasing of components/materials for equipment construction.
- Demonstrable ability to manufacture high-quality components to a high degree of precision.
- Ability to develop effective working relationships with all levels of technical and research staff and collaborators.
- Ability to advise and guide academic, research and technical staff in the development and use of complex equipment.
- Pro-active response to new technology and methods.
- Excellent attention to detail and record keeping.
- Strong attention to detail and focus on high quality work.
- Ability to work to deadlines and to plan, organise and prioritise own and others work activities over weeks/months ahead.
- Well developed understanding of statutory regulations and procedures for health and safety in workshops and laboratories coupled with the ability to take a pro-active approach to maintenance of a clean and safe workshop/laboratory environment.
Personal Attributes

- Willingness to work as part of a team and to be open-minded and cooperative.
- Keen to work in a multidisciplinary environment.
- An open, flexible and positive approach to working in a constantly changing environment.
- Commitment to meeting deadlines.
- Commitment to maintaining and enhancing facilities and training others in their use.
- Willingness to undertake any necessary training and update skills where appropriate.