POSITION DESCRIPTION

Technical Officer / Workshop

Faculty/Division | Engineering
Classification Level | Professional 5/6 broadband
Hours & Span (Category) | E - Technical Officer
Position number | 00037985
Shiftwork status | NOT SHIFTWORKER
Allowances | Click or tap here to enter text.
On call arrangements | Click or tap here to enter text.
Original document creation | 1 October 2018

Position Summary

The **Technical Officer-Workshop** is responsible for supporting the student project workshop, and for manufacturing/modifying (as needed) and repair of School laboratory equipment using both manual workshop machinery and power/hand tools to ensure the effective day to day operations of the School of Electrical Engineering and Telecommunications laboratories. The incumbent will require strong attention to detail and the ability to effectively troubleshoot problems as they arise in a timely manner. They will work closely with the Project Workshop Technical Manager but will also be part of a broader School technical team.

The role reports to the Project Workshop Technical Manager and has no direct reports.

Accountabilities

Specific accountabilities for this role include:

**Level 5**

- Provide safe, efficient and effective day-to-day operation of equipment and services in the Workshop, including:
  - Providing technical support for design and manufacture of specialised equipment for academic and research projects.
  - Operating machine tools, lathes, milling machines and workshop equipment to fine tolerances, including fabrication and carrying out minor welding tasks.
- Assisting with and/or coordinating routine maintenance, troubleshooting and repair of equipment and infrastructure.
- Implementing and maintaining safety systems within the laboratory environment to comply with University and statutory policies, guidelines and procedures.

- Provide engineering design support for the production of apparatus, devices, models and rigs, including:
  - Ratifying the design and construction of apparatus, devices, assemblies, models or rigs.
  - Liaising with staff and students in the creation of design drawings for components and assemblies.
  - Manufacturing, constructing and assembling apparatus, devices, models or rigs using the appropriate manufacturing method.

- Maintain a working knowledge of CNC machines and their programming, including any technological hardware and software upgrades.

- Provide support for large design and manufacture projects, providing design for manufacture input and linking this to the School’s CAD/CAM systems.

- Provide training and assistance to staff and students in the use of CAD/CAM as required.

- As required, provide assistance in other laboratories in the School under the direction of the Project Workshop Technical Manager.

- Align with and actively demonstrate the UNSW Values in Action: Our Behaviours and the UNSW Code of Conduct

- Cooperate with all health & safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the psychosocial or physical health and safety of yourself or others.

**Level 6 (In addition to the above)**

- Provide high level design and manufacturing feedback and advice for complex equipment.

- Consult with Academic staff and other users to identify research requirements for designs and use expertise and experience to provide advice on specific details of designs including materials choice, practicality, manufacturability and cost.

- Provide authoritative technical and logistical advice regarding procurement of materials, equipment and tools for the effective operation of the workshop, using University and School systems as required.

- Contribute to a culture of continuous improvement, evaluating existing equipment, infrastructure, service delivery and training, as well as systems, procedures and protocols, to identify opportunities for improvement and implement change as approved by the Laboratory Manager.

- Communicate with the School and Faculty HSE Coordinator and staff to ensure compliance with Work Health and Safety requirements within the Workshop and School laboratories, including:
Skills and Experience

Level 5

- A relevant trade certificate in fitting and machining or an equivalent level of knowledge gained through any other combination of education, training and/or experience.
- Experience with a broad range of manufacturing techniques and equipment such as CNC vertical machining centres, CNC lathes, fitting, sheet metal working and welding.
- Ability to interpret technical drawings and schematics and a knowledge of SolidWorks and SolidCam (or equivalent CAD/CAM software).
- Well-developed communication skills with demonstrated ability to advise clients on the technical aspects of workshop and laboratory facilities;
- Ability to work both independently and as part of a wider technical team for the benefit of the School.
- Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training, with the ability and capacity to implement required UNSW health and safety policies and procedures.

Level 6 (in addition to the above)

- Extensive experience in own and related trades, with a minimum of 3 years in a similar role in a workshop environment.
- High level organisation skills with a demonstrated ability to deal with multiple tasks and projects, establish priorities and meet deadlines.
- Excellent communication skills and the ability to critically analyse designs and make suggestions for improvements.
- Experience in the formulation of cost/fabrication time estimates including selection and purchasing of materials.
- Proven ability to work independently to analyse situations, identify risks and problem solve, whilst also contributing effectively to a team.
- Sound knowledge of relevant manufacturing standards.

- Providing high level advice on WHS issues and ensuring high standards of workshop and office work practice amongst all staff and students in compliance with relevant UNSW WHS policies and best practice;
- Managing WHS activities including risk assessments, implementation of safe work procedures, development and maintenance of relevant WHS records and registers, provision of WHS training and inductions to staff, students and contractors;
- Leading a focus on the safe management of chemicals in the laboratory;
- Ensuring hazards and risks are identified and controlled for tasks, projects and activities that pose a health and safety or environmental risk within the area of responsibility.
Progression Statement

The incumbent will normally be expected to have reached the top step of level 5 prior to progression to level 6. Criteria for progression to level 6 will be based on satisfactory performance of all duties and accountabilities at level 5 and a demonstrated capacity to take on the duties and accountabilities of the position at level 6, and the availability of and need for the work to be carried out at a higher level in the work unit.

About this document
This Position Description outlines the objectives, desired outcomes, key responsibilities, accountabilities, required skills, experience and desired behaviours required to successfully perform the role.

This template is not intended to limit the scope or accountabilities of the position. Characteristics of the position may be altered in accordance with the changing requirements of the role.