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| Last updated: | Apr 2024 |

**JOB DESCRIPTION**

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| Post title: | **Apprentice Towing Tank Technician** | | |
| Schools: | Engineering | | |
| Faculty: | Faculty of Engineering and Physical Sciences | | |
| Career Pathway: | Technical and Experimental (TAE) | Level: | 3(Apprentice) |
| Posts responsible to: | Towing Tank Technician | | |
| Posts responsible for: | N/A | | |
| Post base: | Non Office-based | | |

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| Job purpose |
| To complete the required academic and practical training requirements of the L4 standard Automation and Controls Engineering apprenticeship, as provided for by the University’s nominated training provider, in order to successfully achieve a Pearson BTEC Level 4 Higher National Certificate in Engineering or Pearson BTEC Level 4 Higher National Certificate in Automation and Control Engineering and be able to complete the job role of an Automation and Controls Engineering Technician:  Gain knowledge and understanding to be able to provide effective and efficient technical support in the development, maintenance and efficient operation of the facility, working alongside the technical team, for the Educational, Research and Enterprise portfolio. Be engaged in the development and commissioning of equipment and systems and preparing models for testing. |

| Key accountabilities/primary responsibilities | | % Time |
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|  | To be able, through training and experienced gained throughout the apprenticeship:  Tank carriage operation, wave maker and other facility equipment for students, staff and external clients. The towing carriage is an item of heavy, but precision, machinery with a highly complex drive and control system. Apply specialist knowledge in order to maintain and operate a range of complex precision measuring equipment. Ensure effective and efficient running of the carriage to achieve the best possible experimental productivity commensurate with the stringent procedures to ensure the safety of all personnel. | 50 % |
|  | Gain experience and knowledge to ensure technical support for the facility’s research, education and enterprise activities, designing, developing and building specialist machines and equipment and developing solutions, techniques and procedures. | 10 % |
|  | Liaise with the technical team:  Plan and organise the facility, ensuring a clean, tidy and safe working environment. This will include planning, conducting and maintaining records of a maintenance schedule, providing a repair and fault-finding service on equipment and devices within the facility, advising on future resource requirements and ensuring health and safety standards within the environment are complied with by staff and students. | 15% |
|  | To comply with health and safety processes within work environment. | 5% |
|  | To be able, through training and experienced gained throughout the apprenticeship:  Demonstrate and advise research staff and students on techniques and the use of equipment in relation to University projects, assisting in the interpretation of test results. Provide specialist advice and support relating to the use of any equipment or devices and operate as required. | 5% |
|  | To support experienced staff in the supervision of students and non-technical staff when they are in this post holders working area, monitoring work and freely imparting knowledge gained regarding equipment, specific techniques and safe procedures. | 5% |
|  | Participate in training and development opportunities as necessary to increase skills, knowledge and qualifications appropriate to the role and in addition to the apprenticeship. Attend prescribed training in the use of equipment and the procedures required to ensure the safe and efficient work. | 5% |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 5% |

| Internal and external relationships |
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| Other members of the department/University staff.  External customers  Students  Suppliers  Training provider – attending academic and practical training sessions and receiving advice and instructions regarding work |

| Special Requirements |
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| To complete the required academic and practical training requirements of the L4 standard Automation and Controls Engineering apprenticeship (20% off the job training).  Able, over the apprenticeship, to develop a flexible and supportive approach to students, researchers and staff, focussing on the range of requirements for modules, projects and other activities in the Faculty eventually including demonstration of equipment use if required by the role.  A proactive approach to developing a welcoming and productive environment within workshops  Ability to maintain a safe working environment in accordance with Health and Safety procedures, within an engineering workshop.  Please note this role could require substantial moving and handling. |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | Qualification in engineering or engineering related subjects to Level 3 of the NQF [**comparison** chart](https://www.gov.uk/what-different-qualification-levels-mean/compare-different-qualification-levels),  *or* NVQ Level 3,  *or* 1A Level,  *or* 2 AS levels  *or* T level in design and development for engineering and manufacturing  *And* Minimum 5 GCSE including Maths, English and Science at Grades 5-9  Able to sit aptitude tests. | Experience of Electronics, Control Systems or practical work/hobbies.  Experience of working in a electronics/automation/robotics workshop.  Software/hardware programming  Experienced in using Computer Aided Design (CAD) and Computer Aided Manufacture (CAM)  Experience of 3D drawing packages  Ability to make effective use of standard office computer systems including word-processing and spreadsheets.  Ability to understand specialist technical equipment, processes and procedures. | Application/training provider aptitude tests/interview. |
| Planning and organising | Self-starting and motivated with a positive attitude. | Able to plan and organise own work in addition to taking instruction from others | Interview/application |
| Problem solving and initiative | Enquiring and inquisitive mind. | Experience of contributing ideas in order to solve technical problems.  Experience of using judgement to find solutions to problems for which no standard procedure exist. | Interview/Application |
| Management and teamwork |  | Present/Previous membership of group: Sports, scouting etc. | Interview/Application |
| Communicating and influencing | Good written and verbal skills | Able to elicit information to identify specific customer needs e.g.gained through customer facing role in any previous work experience  Previous experience of demonstrating skills to others e.g. sports/group captain etc. | Interview/Application |
| Other skills and behaviours | Proactive in promoting a working environment that is inclusive and engaging; recognising the value diversity brings. | Previous work experience/voluntary work | Interview/Application |
| Special requirements | Willingness to undertake Health and Safety training specific to role.  Willingness to engage with the opportunities the Technician Commitment brings.  Ability to attend off-site learning / training by own methods. |  | Interview/Application |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally**  (<30% of time) | **Frequently**  (30-60% of time) | **Constantly**  (> 60% of time) |
| Outside work | ✓ |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below:  General engineering solvents as per Risk Assessments  Machine coolant as per Risk Assessments  Welding fume as per Risk Assessments/extraction | ✓ |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) |  |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers) | ✓ |  |  |
| **PHYSICAL ABILITIES** | | | |
| Load manual handling | ✓ |  |  |
| Repetitive crouching/kneeling/stooping | ✓ |  |  |
| Repetitive pulling/pushing | ✓ |  |  |
| Repetitive lifting | ✓ |  |  |
| Standing for prolonged periods | ✓ |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) | ✓ |  |  |
| Fine motor grips (eg: pipetting) |  |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height | ✓ |  |  |
| Repetitive reaching at shoulder height | ✓ |  |  |
| Repetitive reaching above shoulder height | ✓ |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public | ✓ |  |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |