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| Last updated: | 08.07.24 |

**JOB DESCRIPTION**

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| Post title: | **Creative Computing Technician (1.0FTE)** | | |
| School/Department: | Winchester School of Art | | |
| Faculty: | Arts & Humanities | | |
| Career Pathway: | Technical and Experimental (TAE) | Level: | 3 |
| Posts responsible to: | Technical Manager | | |
| Posts responsible for: | None | | |
| Post base: | Office-based/Non Office-based (see job hazard analysis) | | |

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| Job purpose |
| To provide effective and efficient technical support to the School, it’s students, staff and external customers in the area of Creative Computing. To support the use of a wide range of different hardware and software for both staff and students, along with the delivery of workshops at both UG and PGT levels. To be responsible for the Creative Computing studios in regards to upkeep, day to day maintenance and Health & Safety, with guidance from the Programme Leader and Technical Manager. |

| Key accountabilities/primary responsibilities | | % Time |
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|  | To plan and provide specialist technical support for workshop sessions, interpreting and meeting the requirements of the students or staff, and deploying defined resources to ensure operational and cost-efficiency. | 35 % |
|  | To supervise students; provide instruction, consultation and advice using specialist knowledge and experience in relevant areas to groups or on an individual basis including demonstrations, workshops & training. Identify the learning needs of students and help them realise their ideas. | 30 % |
|  | To monitor and maintain a safe working environment in accordance with Health and Safety policies and procedures, and to ensure that the specialist equipment and resources are used safely and accurately. This will include updating Generic Risk Assessment and Health & Safety data sheets. | 10 % |
|  | To ensure specialist equipment in the work environment is maintained in accordance with technical and health and safety procedures, diagnosing faults and repairing apparatus as necessary. | 10 % |
|  | To advise on the pricing and purchasing of equipment and consumables and ensure adequate stocks of supplies, ensuring finances and work resources are monitored efficiently and appropriately. | 5 % |
|  | To train students, colleagues and new researchers in techniques and the safe and effective use of equipment, communicating and liaising with all internal and external users of technical service. | 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 Technical Services team and WSA academic staff.  Technical Manager (direct line manager).  External customers.  Relevant suppliers and external contacts. |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | Relevant degree (or equivalent qualification or experience).  Experience and knowledge of specific software including VS Code and/or Studio, Git Version Control and Office 365.  Experience of applying understanding of specialist technical equipment, processes and procedures.  Able to demonstrate a good understanding of technical processes relating to work area.  Ability to accurately analyse and interpret complex quantitative and qualitative data, presenting summary information in a clear and concise format. | Financial administration/budget monitoring experience.  Knowledge and experience teaching and practicing in Open-Source approaches to creative computing.  Experience in public outreach including Open Days, workshops, other events and social media.  Experience in community building, e.g. through digital collectives, communities, hacker spaces etc.  Awareness of the climate crisis and knowledge in sustainable approaches to creative computing. | Application form |
| Planning and organising | Able to plan and prioritise a range of one’s own, and the team’s, standard and non-standard work activities. | Ability to successfully plan and deliver technical support of projects over a period of several months. | Interview and  Application form |
| Problem solving and initiative | Experience of contributing innovative ideas in order to solve technical problems.  Experience of using judgement to find solutions to problems for which no standard procedure exist. | Ability to work agnostically across a range of technologies and applications to solve specific problems in practice.  Ability to assess and use appropriate tools, while also contribution to innovation within the programme through the purchasing of new technologies | Interview and  Application form |
| Management and teamwork | Experience of providing training/coaching to colleagues and students in relation to technical tasks  Able to solicit ideas and opinions to help form specific work plans.  Able to positively influence the way a team works together.  Able to ensure staff are clear about changing work priorities and service expectations. | Able to monitor and manage resources and budgets.  Able to manage inventories of hardware and software with academic and technical staff across a variety of programmes.  Ability to effectively allocate to, and check work of staff, coaching/ training and motivating staff as required. | Interview and  Application form |
| Communicating and influencing | Able to elicit information to identify specific customer needs.  Able to offer proactive advice and guidance on technical processes and procedures.  Able to communicate and liaise with users of the technical services, both internal and external to the department.  Experience of demonstration skills | Able to provide expert guidance to colleagues in own team, other work areas and institutions to develop understanding and resolve complex problems.  Experience in community building, e.g. through digital collectives, communities, hacker spaces etc.  Awareness of the climate crisis and knowledge in sustainable approaches to creative computing. | Interview |
| Other skills and behaviours | Ability to remain calm under pressure. |  | Interview |
| Special requirements | Ability to support core technical skills for creative computing, including programming for creative applications and hardware projects for beginners to advanced groups.  Knowledge of the history of art and innovative design methods  Experience with creative platforms and processes, including:   * + Creative coding applications and platforms including Processing, Open Frameworks, P5.js, TidalCycles etc.   + Human Computer Interaction   + Microcontrollers (Arduino, Pi etc)   + Visual programming platforms including PureData, VVVV, Touch Designer, Max/MSP etc.   + Coding languages including Python and Web based coding.   + Desktop and Mobile Application Design and Development.   + Machine Learning frameworks   + Generative AI Platforms   + Sensors, IoT and Wearables   + Audio-visual production and performance (including live coding)   + Immersive Tech, including VR/AR/XR and other liminal screens.   + Games and playable media | Knowledge of design practices, workflow practices, and/or software relevant to the field of creative technologies.  Awareness of international standards for computing such as IEEE, W3C, BSOL etc.  Experience in transdisciplinary art+ science research practice.  Experience teaching across several STEAM subjects for diverse student groups.   * + Basic knowledge of C++ and C#   + Server communications (Ruby, PHP, SQL etc)   + Alternative networking technologies eg. LoRaWAN+WSPR etc.   + Projection mapping and motion capture   + Informatics   + Creative Robotics and Intelligent Systems Design   + Health and Wellbeing Applications   + Algorithmic Mathematics   + Analogue Media Integration   + Crowd/cloud data gathering and processing.   + Audio Pipelines such as OSC   + Additivist Practice (3D scanning, fabrication etc).   + Parametric Design and 3D modelling   + Visual Communication Design   + Post-Digital Storytelling   Net Art / Networked Performance | Interview |

**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: |  |  |  |
| 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 | X |  |  |
| Repetitive crouching/kneeling/stooping | X |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting | X |  |  |
| Standing for prolonged periods | X |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) | X |  |  |
| 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 | X |  |  |
| Lone working | X |  |  |
| ## Shift work/night work/on call duties |  |  |  |