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| Last updated: | October 2022 |

**JOB DESCRIPTION**

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| Post title: | **Test Manager** | | |
| Academic Unit/Service: | iSolutions | | |
| Faculty: | Professional Services |  |  |
| Career pathway: | Management, Specialist and Administrative (MSA) | Level: | 5 |
| Posts responsible to: | Principal Architect | | |
| Posts responsible for: | Test Analysts | | |
| Post base: | Office based | | |

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| Job purpose |
| * Working with technical colleagues and business stakeholders, the Test Manager is responsible for creating and maintaining test strategies, standards, policies, and roadmaps to support thorough test regimes for successful delivery of programmes (and other critical IT systems across Education, Research and Business services). * The Test Manager is responsible for formation and management of a team of specialist test analysts tasked with successfully delivery of functional and non-functional test capabilities. |

| Key accountabilities/primary responsibilities | | % Time |
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|  | Take responsibility for all aspects of testing across the university IT estate, including technical system and integration testing and user acceptance testing (UAT). Provide test capabilities which cover both functional and non-functional application requirements.  Where necessary identify and provide expert guidance and advice to stakeholders in all testing related matters. | 30 % |
|  | Definition of test capabilities and vision   * Define testing strategies and standards to ensure test plan consistency across programmes, projects, and version releases. * Build a test roadmap to define current and future capability and environment landscape to support delivery of quality products and excellent user experience. * Describe and acquire application environments required for test purposes. Ensure appropriate data storage within test environments to ensure information protection and cyber security demands are satisfied. * Ensure testing standards are met throughout development, configuration, and release stages. * Collaborate with key stakeholders within iSolutions and across the wider university to define and schedule testing capabilities and requirements. * Work with senior colleagues to identify areas of improvement through new testing technologies, toolsets, and methodologies. * Develop functional test automation capabilities and define test automation strategy. * Develop relationships with external partners to improve response to non-functional test demand. | 30 % |
|  | Identify how best to schedule and execute system testing, system integration testing and UAT, negotiating with key stakeholders for appropriate and timely resources (people, equipment, and location). Ensure correct configuration of data and facilitate access for testers/users to appropriate test environments. | 10 % |
|  | Support all test staff and business users (permanent, fixed term and contract) to ensure delivery of high-quality test processes and outcomes.  Develop a positive, collaborative team environment.  Encourage staff development by providing opportunities to improve technical and soft skills, and plan training programmes which align with both the team and university’s needs.  Promote a culture of innovation and continual improvement aimed at delivering real value for the university. | 10% |
|  | Build and maintain reports & analytics to highlight progress against key performance indicators and managing defects | 5 % |
|  | Contribute, and encourage team members to contribute, to communities of best practice, both within the testing field and aligned areas (for example security, user experience, software development) to promote ideas, policies and procedures which aim to showcase test best practice across different delivery streams. | 5 % |
|  | Maintain & develop own knowledge (testing, applications/business processes/role/industry, etc). Take a principal role in the test community, facilitating briefings and presentations to share best practice. | 5 % |
|  | Any other duties allocated by the line manager or senior management following consultation with the post holder. | 5 % |

| Internal and external relationships |
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| The post-holder will be expected to form and maintain productive relationships at all levels across the university  Internal:  The post holder will maintain close working relationships with:   * Service Delivery teams within iSolutions * Customer Experience teams within iSolutions * Academic staff at all levels across the organisation * Professional Services and Faculty colleagues across the University.   External:  The post holder will develop and maintain relationships with:   * Software and service suppliers and partners * Other academic institutions and related organisations to participate in collaborative activities and projects to the benefit of iSolutions and the university as a whole.   It is expected that the duties will be performed in the light of the relevant activities in Higher Education generally. The post-holder will be expected to be aware of the activities and initiatives being formulated nationally and internationally within the relevant specialist area and will be expected to take part in such activities should they be relevant to and of benefit to the work being undertaken locally. |

| Special Requirements |
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| To maintain the relevant level of professional expertise and qualifications to discharge the duties of Test Manager and to agree with the line manager on a relevant professional development programme.  To have an understanding of how equality, diversity and inclusion applies to the responsibilities of the role and to actively promote equality, diversity and inclusivity in all aspects of the role.  The role will require travelling between campuses as appropriate.  There may be a requirement to work varying core hours, and on occasion to work outside normal hours, to ensure that service commitments are met. |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge, and experience | A relevant technical, engineering or science degree and/or equivalent technical experience.  Proven ability to apply and manage fundamental test processes in System, System Integration, and user acceptance testing environments.  Experience of working with PRINCE2 and/or Agile software development lifecycles.  Proven experience planning and progressing test activities within broad professional guidelines and/or broad organisational policy.  Minimum of ISTQB/ISEB Foundation Level Certificate.  Demonstrable experience of software development lifecycle and associated delivery models.  Experience of student systems testing | Knowledge of different automation tool frameworks:   * Data-Driven * Model-Based * Keyword-Driven * CI/CD and/or BDD   ISTQB Advanced Level Test Analyst  ISTQB Agile Tester Extension  ISTQB Model-based Tester Extension  ISTQB Test Automation Engineer  Experience or knowledge of modern code testing tools or frameworks, for example   * Selenium web driver * Cucumber/SpecFlow * WaTiN/WaTiR   Familiarity with modern programming languages such as:   * Java * C#, * Python, * PHP * Ruby, * SQL   Experience of DevOps practices and culture.  Experience with data analysis tools.  Lean Six Sigma White Belt  Demonstrate commitment to maintaining professional knowledge and awareness through continuing personal and professional development. | Application & Interview |
| Expected Behaviours | Able to apply and actively promote equality, diversity, and inclusion principles to the responsibilities of the role.  AND  As a Line Manager role model the Southampton Behaviours and work with the management team to embed them as a way of working within the \*faculty/directorate/school/department. |  |  |
| Planning and organising | Experience selecting, architecting, and implementing test tools and processes.  Experience of developing and managing test plans  Able to organise, plan and execute own workload and that of other test team members through proactive engagement with project managers, service owners and senior leadership.  Able to work in an environment with changing and possibly conflicting priorities. |  | Application & Interview |
| Problem solving and initiative | Able to analyse defects using root cause analysis techniques to explore the stated issue and provide full details to support the resolution of problems.  Able to develop understanding of long-standing and complex problems and to apply professional knowledge and experience to solve them.  Demonstrable structured, logical, and critical thinking that they can apply to guide stakeholder’s direction.  Able to think laterally and provide innovative ideas to enhance the Quality and Test function.  Confidence, experience, and skills to take initiative, but know when to refer queries upwards.  Able to investigate and provide creative approaches to problem solving | Ability to take effective and creative approaches to problem solving.  Confidence to challenge existing working practices and offer ideas.  Methodical, calm, and clear thinking under pressure. | Application & Interview |
| Management and teamwork | Able to support a highly technical team, and to collaborate effectively with other technical specialists and project managers to ensure timely delivery of quality test products and processes.  Able to foster good relationships with colleagues and other members of the organisation.  Experience working in an Agile development team. |  | Application & Interview |
| Communicating and influencing | Able to enthuse a team through good example and compelling influence.  Able to provide clear and concise instruction and direction to team members when required.  Able to create and / or review documentation to ensure it is correct and appropriate.  Effective presentation skills in order to convey technical concepts to team members, peers and colleagues across the university.  A professional, customer orientated approach to service delivery.  Demonstrate good stakeholder management through communication skills. | Involvement in relevant technical communities, such as through technical blogging, attendance at workshops and conferences, or contributing to open projects. | Application & Interview |
| Other skills and behaviours |  |  |  |
| Special requirements | The post-holder will be required to occasionally work outside normal office hours. |  |  |

**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 (e.g.: 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 (e.g., 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 (e.g.: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (e.g.: solvents, liquids, dust, fumes, biohazards). Specify below: |  |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles (e.g.: car/van/LGV/PCV) |  |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (e.g.: strimmers, hammer drill, lawnmowers) |  |  |  |
| **PHYSICAL ABILITIES** | | | |
| Load manual handling |  |  |  |
| Repetitive crouching/kneeling/stooping |  |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods |  |  |  |
| Repetitive climbing (i.e.: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (e.g.: 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 |  |  |  |