JOB DESCRIPTION AND PERSON SPECIFICATION

Role: Lecturer in Mechanical Engineering

Faculty and School: Faculty of Science & Engineering
School of Engineering

Career Pathway: Balanced

Grade: 7/8

Reports to: Head of School

Role Purpose:
To undertake research and teaching in line with University/School’s strategy and to carry out leadership, management and engagement activities. All activities undertaken within this role will be compliant with the University’s policies, including Health & Safety, Equality and Diversity, Ethics, Data Protection etc.

<table>
<thead>
<tr>
<th>Key Accountabilities/Primary Responsibilities:</th>
<th>Indicators of Success:</th>
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<tbody>
<tr>
<td><strong>Research and Enterprise:</strong></td>
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<tr>
<td>• Engage in the development of research objectives, projects and proposals, conducting research individually or collaboratively and ensuring that the outputs of research are used to enhance teaching where relevant.</td>
<td>• Research group, Faculty, School and University reputation</td>
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<tr>
<td>• Identify suitable sources of funding and contribute to the process of securing funds.</td>
<td>• Individual contribution to the REF and external review of outputs</td>
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<tr>
<td>• Develop a national and international reputation for research, including thorough and regular dissemination and explanation of high quality findings through internationally-leading peer reviewed publications.</td>
<td>• High quality research outputs as judged by accepted standards of excellence in relevant discipline</td>
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<tr>
<td>• Represent the School/Faculty/University externally in relevant research communities contributing to the field and the University’s profile within it.</td>
<td>• Levels of external funding secured that include a proportion of PI level funding</td>
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<tr>
<td>• Develop and sustain links with relevant industries and organisations to grow collaborations, employability and funding support.</td>
<td>• Peer review</td>
</tr>
<tr>
<td>• Where relevant, contribute to enterprise in the University, drawing on internal and external partnerships. Develop ideas for generating income and promoting a subject area and contribute to the process of securing.</td>
<td>• External profile and reputation including external invitations</td>
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<tr>
<td>• Participate in research supervision and pastoral support for undergraduate and postgraduate students.</td>
<td>• Personal Development Review (PDR) feedback</td>
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<td></td>
<td>• Research student satisfaction survey outputs</td>
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<td></td>
<td>• Research student studentship completion rates</td>
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<td></td>
<td>• Staff turnover and satisfaction rates</td>
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</tbody>
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- This job description provides a general reflection of the key accountabilities associated with the post, and you may be expected to take on other reasonable activities to assist in efficient service delivery.
- Emphasis on specific accountabilities and indicators of success aligned with your career pathway will be agreed at recruitment and as part of your PDR.
- Grade 7 and 8 represent points on a continuum. Individuals on Grade 7 roles will have the opportunity to progress to Grade 8 once they are sufficiently experienced in all elements of the role and upon achievement of any necessary formal qualifications/training agreed upon appointment (such as achieving PGCAP).
### Education/Teaching:
- Deliver teaching of the highest quality across a range of modules and to all levels, through lectures, tutorials, practicals and seminars and participate in field trips.
- Contribute to delivery nationally and internationally as appropriate and in line with University policies and guidelines.
- Provide pastoral care (through the role of personal tutor where appropriate).
- Supervise students on projects, field trips, placements, including where appropriate in clinical or professional practice. Ensuring that a high quality learning and research environment is provided.
- Set and mark coursework and exams within required timescales, and provide constructive feedback to students in line with University guidelines/policy.
- Engage with relevant professional bodies, organisations and industries to support their work and inform teaching to enhance the student experience and student employability.
- Contribute to the development of new programmes of study.
- Monitor, evaluate and review course and programme design ensuring suitable for on-campus and distance learning delivery, and revise as necessary to ensure excellence and coherence. Identify areas of existing provision in need of revision or improvement and take forward as appropriate.
- Develop and promote innovative teaching and learning approaches, media and material, which create interest, understanding and enthusiasm amongst students.

### Leadership, Management and Engagement:
- Work as a team member, developing productive relationships with colleagues and leading modules, programmes and activities where appropriate.
- Manage administrative tasks as appropriate relating to research, enterprise, education and teaching, including risk assessment of activities and contribute to project meetings and report writing.
- Actively participate in national/international recruitment and marketing activities in the School and other student events as appropriate.
- Participate in and develop external networks and build the reputation of the organisation through disseminating learning through appropriate fora.

### Performance Indicators:
- **Student satisfaction survey outputs**
- **Student recruitment outcomes**
- **Student completion rates**
- **Student learning outcomes**
- **Module evaluations**
- **Teaching observation and peer review**
- **Compliance of courses with regulation**
- **PDR feedback**

- **Staff satisfaction surveys**
- **Staff turnover**
- **Student learning outcomes**
- **Student satisfaction survey outputs**
- **PDR feedback**
- **Research group, Faculty, School and University reputation**
- **Teaching observation and peer review**
- **Profile in the practice area**
- **Participation in relevant Institutes and Societies**
- **Collaboration with industry partners**

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### PERSON SPECIFICATION

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Essential</th>
<th>Desirable</th>
<th>Point at which information used in recruitment process</th>
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<tbody>
<tr>
<td><strong>Knowledge, Education and Training:</strong></td>
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<tr>
<td>- PhD or equivalent international qualification or commensurate level of recognition/international profile in Mechanical Engineering.</td>
<td>X</td>
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<tr>
<td>- In depth knowledge of Mechanical engineering, Composite Materials, FEA or Manufacturing engineering sufficient to enable innovation and new understanding in the field.</td>
<td>X</td>
<td>X</td>
<td>Shortlisting</td>
</tr>
<tr>
<td>- Recognised HE teaching qualification or Fellowship of HEA (or the ability to gain this within 2 years from the date of appointment).</td>
<td>X</td>
<td>X</td>
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<tr>
<td>- Relevant Professional Qualification, e.g. Chartered Engineer status highly desirable.</td>
<td>X</td>
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<td>- Specialist research interest in an area that complements or builds upon existing Mechanical, Engineering expertise within the School.</td>
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<td><strong>Experience:</strong></td>
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<tr>
<td>- Experience of delivering high quality research led teaching at undergraduate and/or postgraduate level across the core of the mechanical engineering discipline.</td>
<td>X</td>
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<tr>
<td>- Contributed successfully to research projects, grant applications, and developing collaborative research networks.</td>
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<td>X</td>
<td>Shortlisting and interview</td>
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<td>- Familiarity with relevant current industry standard computer-aided mechanical engineering analysis tools (SolidWorks, ANSYS, Autodesk Helius and other CAE/FEA packages) is highly desirable.</td>
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<td>X</td>
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<tr>
<td>- Ability to engage students and motivate and inspire them to become highly employable engineers</td>
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Skills and Attributes:

Drives innovation and action:
- Ability to deliver high-quality innovative teaching and learning.
- Ability to develop innovative research proposals and attract research proposals.
- Intellectual agility for the solving of problems.

Demonstrates self-leadership, balancing personal needs with the University's strategic objectives:
- Self-aware with the ability to accept different views and self-regulate approach appropriately.
- Skilled approach to planning, managing, organising and objectively assessing own teaching and research contributions.

Develops self and others to deliver:
- Ability to plan, manage, organise and assess own teaching contributions.
- Ability to mentor and support students/tutorial groups
- Ability to undertake co-ordinating role at programme/school level.
- Proactively participates in scholarly activity.

Leads and operates amidst change and ambiguity:
- Ability to take a long-term holistic view and remain focussed during times of change and uncertainty.
- Ability to remain resilient, flexible and work with conflicting priorities.

Builds and secures value from relationships:
- Is proactive in approach to seeking and managing research collaborations and opportunities for joint research projects.
- Works effectively and collegiately as a part of an interdisciplinary team.
- Fosters and develops good relationships between own School and the wider University, and with external partners.

Creates and contributes to a shared vision, inspiring others:
- Has strong written, verbal and presentation skills.
- Ability to communicate new and complex information effectively, both verbal and written, engaging the interest and enthusiasm of the target audience.

Uses sound business judgement:
- Ability to monitor and manage resources and budgets where appropriate.
- Identifies ways to diversify income and improve revenue.
- Make evidence informed decisions in a transparent way whilst remaining accountable to self, the University and students.

This section is used by the panel to inform interview questions for formal interview.

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