

JOB DESCRIPTION

Job Title:	LECTURER (L)/ SENIOR LECTURER (SL) in Mechanical/Chemical Engineering	Grade:	AC2/3
Department:	School of Engineering	Date of Job Evaluation:	November 2020
Role reports to:	Head of Engineering		
Direct Reports	Portfolio Lead in Mechanical/Chemical Engineering		
Indirect Reports:	None		
Other Key contacts:	Deputy Head of School		
This role profile is non-contractual and provided for guidance. It will be updated and amended from time to time in accordance with the changing needs of the University and the requirements of the job.			

PURPOSE OF ROLE:

To engage in lecturing, research and enterprise activities of the School of Engineering together with other academic and administrative activities associated with the broader Faculty of Engineering and Science. Teaching duties will include basic thermodynamics concepts (such as the laws of thermodynamics, entropy, equations of state, intermolecular forces etc). Teaching will also involve applied concepts to transient open and closed systems with practical cases in chemical and mechanical engineering. Concepts such as thermo-fluids will be approached from a design processing approach. Furthermore, advanced processing methods and optimisation will be covered with emphasis on how new concepts such as artificial intelligence and big data are used in the chemical process industry.

- Contribute to the delivery of existing teaching, course development, and to participate in the research carried out in Mechanical/Chemical Engineering
- Contribute more widely to the design and delivery of teaching activities, reflecting the successfully candidate's own subject specialism appropriate for the needs of a diverse student body; across the range of courses offered by the department
- Engage in research and professional practice across the subject area and contribute to the research profile of the Department and to the next REF submission and engage with one or more of the faculty research groups.

Candidates appointed at Senior Lecturer level are expected to demonstrate emerging leadership in a subject area and a growing reputation and impact across the Faculty, University, and more widely.

KEY ACCOUNTABILITIES:**Team Specific:**

- Contribute to the Mechanical/Chemical Engineering portfolio delivery of high quality, innovative and effective teaching and new teaching initiatives, including inclusive approaches to setting and marking assessment
- To contribute on new course and new MSc (Eng) programme development.
- Work proactively on specific research topics aligned to your own and the department's research interests
- Lead on personal and academic tutoring of undergraduates
- Lead and support others in the design and develop of new courses/modules demonstrating excellent curriculum design;
- Contribute/lead to curriculum development within the Department
- Contribute/lead on the delivery of external accreditation activity
- Contribution to the integration of enterprise work/research and scholarship and activities into teaching or professional training materials
- Participation in the delivery of new courses, including CPD and degree apprenticeships, integrating enterprise, innovation or external engagement activities
- Contribute to subject, professional and/or pedagogical research leading to the publication and/or dissemination of original work
- Contribute to the research profile of the academic unit and to the REF submission in a School of Engineering research group
- To contribute and/or initiate the development of funding bids which contribute to the acquisition of internal and external resources to fund research, enterprise or teaching projects
- Contribution to the continuous improvement of the student experience or Lead courses/modules effectively including adopting a responsive approach to students
- Effective cross working with Professional Services to support students
- Contribute to relationship management and engagement with key external bodies for teaching at a regional and national level; the national or regional public/cultural sectors/business, industry/professional bodies in relation to teaching, research or enterprise
- Maintain effective, high quality and productive working relationships with professional bodies and employers
- Supervision of undergraduate and postgraduate students
- Work with other academics and lead the development of new courses, programmes and learning experiences in the department's discipline areas, developing the subject area and sharing best practice across the Faculty and University
- Work with other academics and the administrative teams to deliver excellent student care and support student success and employability
- Contribute to the general academic administrative work of the Department and Faculty

Generic:

- Assist the Mechanical/Chemical Engineering portfolio in achieving the Department's KPIs
- Contribute to departmental plans, activities and efficient working practices
- Participate in visit to schools, local community groups, public engagements and related activity
- Demonstrate a commitment to equality, diversity and inclusion through teaching practice

and / or engagement with University initiatives

- Contribute to peer review and departmentally based teaching development activities
- Promote your work and represent your discipline and the work of the University internally and externally, and take a proactive approach to ethical, good practice

Managing Self

- Develop expertise in inquiry/research-informed teaching with an increasing degree of autonomy
- Keep abreast of developments within the field and seek continuous improvement of own professional practice
- Actively participate in established professional development framework activities
- Behave in a manner which reflects the University values and creates a positive environment for work and study
- Maintain a high standard of student engagement and satisfaction
- Seek to maximise the learning outcomes of students

Core Requirements

- Adhere to and promote the University's policies on Equality and Diversity and Information Security
- Ensure compliance with Health and Safety regulations and Data Protection legislation
- Support and promote the University's Sustainability policies, including the Carbon Management Plan, and carry out duties in a resource efficient way, recognising the shared responsibility of minimising the university's negative environmental impacts wherever possible.

Additional Requirements:

Any other duties commensurate with the post and grade as agreed with the Head / Deputy of School / Portfolio Lead and the PVC of the Faculty.

KEY PERFORMANCE INDICATORS:

Performance Indicators will be established in consultation with the Portfolio Lead as part of the post-holder's annual Appraisal and Professional Development Review but will include:

- Delivery of teaching and learning in line with the University's strategic plan KPIs.
- Delivery of research output in line with University strategic plan KPIs.
- Supporting the delivery of departmental KPIs against the University's strategic plan KPIs.

KEY RELATIONSHIPS (Internal & External):

Working with colleagues in the programme teams and Department to deliver against the Department's agenda. Working with colleagues from across the Faculty to support broader Faculty priorities. Externally, working with feeder schools / colleges, industry and professional bodies.

PERSON SPECIFICATION

Essential	Desirable
<p>Experience</p> <ul style="list-style-type: none"> • Breadth of experience and knowledge in Chemical/Mechanical Engineering subjects • Experience and specialist knowledge in one or more of the following teaching areas: <ol style="list-style-type: none"> 1) General Chemical Engineering Practice 2) Engineering Thermodynamics 3) Heat and Mass Transfer 4) Process Design, Safety and Optimisation • Experience of teaching in the HE sector in the preferred areas of expertise • Established record of research and/or consultancy projects • Experience in supervising student projects <p>Skills</p> <ul style="list-style-type: none"> • Excellent communication skills • Team working skills • Pro-active approach/attitude • Creativity • Planning and organisational skills • Well-developed time management skills <p>Qualifications</p> <ul style="list-style-type: none"> • PhD • Membership of IChemE and Accreditation by appropriate professional bodies, including holding • CEng status or eligibility for CEng 	<p>Experience</p> <ul style="list-style-type: none"> • Postgraduate teaching /supervision • Creating professional/community partnerships • Ability to teach across disciplines • Leading on external accreditation activity • Designing and leading significant teaching and assessment activity • High quality publications • Initiating the development of Research bids • Experience of module/course development • Experience of Quality Assurance and Quality Enhancement systems • Procurement of funding for research, knowledge transfer and/or consultancy • Supervision of postgraduate research students • Previous professional experience in a related area • <p>Skills</p> <ul style="list-style-type: none"> • Curriculum development in chemical or mechanical engineering • Skills in specialist software • Knowledge of appropriate professional standards and codes, including accreditation processes • Participated in collaborative research projects as appropriate to the discipline, normally at an international level • Attract external funding to support research activity in collaboration with other Universities or organisations as appropriate to the discipline <p>Qualifications</p> <ul style="list-style-type: none"> • Holder or registered in obtaining teaching qualification (e.g. PGCertHE) or membership of HEA