|  |  |
| --- | --- |
| Last updated: | <date> |

**JOB DESCRIPTION**

|  |  |  |  |
| --- | --- | --- | --- |
| Post title: | **Lecturer in Chemical or Energy Engineering** | | |
| School/Department: | School of Chemistry (Chemical Engineering) and School of Engineering | | |
| Faculty: | Engineering and Physical Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 5 |
| \*ERE category: | Balanced portfolio | | |
| Posts responsible to: | Head of Group | | |
| Posts responsible for: |  | | |
| Post base: | Office-based/Non Office-based (see job hazard analysis) | | |

|  |
| --- |
| Job purpose |
| To teach Chemical Engineering or Mechanical Engineering at undergraduate and postgraduate level, to undertake research in line with the School/Department research strategy and to undertake leadership, management and engagement activities. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | Support the teaching objectives of the School/Department by managing a range of contributions to its learning and teaching activities. Deliver teaching of the highest quality across a range of modules and to all levels, through lectures, tutorials, practicals and seminars. | 20 % |
|  | Directly supervise students, providing expert advice on learning best practice and helping with learning problems. Identify the learning needs of students and define learning objectives. Promote the use of appropriate media to support student learning. Set and mark coursework and exams, providing constructive feedback to students. | 10 % |
|  | Monitor, evaluate and revise course design to ensure excellence and coherence. Identify areas where current provision is in need of revision or improvement, planning and developing innovative contributions to learning, teaching and assessment methods within the School/Department as appropriate. | 10 % |
|  | Develop the research activities of the School/Department by sustaining a personal research plan. Manage the application of a range of research methodologies, approaches and techniques appropriate to the type of research personally being pursued. | 15 % |
|  | Establish a national reputation for research and the enhancement of learning and teaching practice by sustaining the regular dissemination of findings through leading peer-reviewed publications, presenting results at conferences, or exhibiting work at other appropriate events. | 10 % |
|  | Plan and develop innovative research proposals, projects and funding bids as self-contained items or as part of a broader programme | 15 % |
|  | Carry out management and administrative tasks associated with specified research funding, including risk assessment of project activities, organisation of project meetings and documentation and preparation of annual reports. To oversee and implement procedures required to ensure accurate and timely formal reporting and financial control. | 10 % |
|  | Contribute to the efficient management and administration of the School/Department by performing personal administrative duties as allocated by the Head and by taking on appropriate School/Department coordination roles. | 5 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 5 % |

| Internal and external relationships |
| --- |
| To work closely with staff in the Schools of Chemistry and Engineering to develop successful UG and PG programmes.  Member of the School/Department Board, Examination Board and of such School/Department committees relevant to their administrative duties.  New appointees will be assigned a senior colleague to guide their development and aid their integration into the School/Department, Faculty and University.  Research priorities will be agreed within the strategic framework of the research Group of which they are a member.  Teaching and administrative duties will be allocated by the Head of School/Department, within the context of the teaching programmes agreed by the School/Department Learning and Teaching Committee. |

| Special Requirements |
| --- |
| To attend national and international conferences for the purpose of disseminating research results.  To be available to participate in residential fieldwork, in the UK or overseas, according to own area of subject specialism. A normal expectation would be of one such course per annum.  To take an active role in student recruitment. |

**PERSON SPECIFICATION**

|  |  |  |  |
| --- | --- | --- | --- |
| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD or equivalent professional qualifications and experience in Chemical Engineering or a closely allied discipline.  Educated to graduate level or equivalent in Chemical or Mechanical Engineering, or a closely related subject.  Eligibility for Membership of the IChemE or IMechE at associate level or above.  Growing and consistent national research reputation.  Teaching qualification (PGCAP or equivalent) either awarded or to be achieved during probation.  Experience of teaching at undergraduate and postgraduate level.  Demonstrated success in delivering learning outcomes.  Track record of published research. | Demonstrable experience in process engineering, reactor design, separation technologies, and/or modelling of whole plant processes.  Membership of Higher Education Academy.  Membership of the IChemE or IMechE  Experience of working with industrial partners or on projects with strong industrial relevance.  Strong interest in the development of new undergraduate and postgraduate modules | CV, application, interview, references |
| Planning and organising | Proven ability to plan and develop a range of high quality research and teaching activities, ensuring plans complement broader research and education strategy.  Able to develop innovative research proposals and attract research funding.  Proven ability to plan, manage, organise and assess own teaching contributions.  Proven ability in the design of course units, curriculum development and new teaching approaches in the School/Department. |  | CV, application, interview, references |
| Problem solving and initiative | Able to identify broad trends to assess deep-rooted and complex issues.  Able to apply originality in modifying existing approaches to solve problems. |  | CV, application, interview, references |
| Management and teamwork | Able to manage, motivate and coordinate research team, delegating effectively. Able to formulate staff development plans, if appropriate.  Proven ability to manage and deliver own course units and team-taught course units.  Proven ability to coach and support students/tutorial groups.  Able to undertake coordinating role in School/Department/University.  Able to monitor and manage resources and budgets.  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development. |  | CV, application, interview, references |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience.  Track record of presenting research results at group meetings and conferences.  Track record of delivering lectures and seminars in courses relating to different aspects of (subject area).  Able to engage counselling skills and pastoral care, where appropriate.  Able to persuade and influence at all levels in order to foster and maintain relationships, resolving tensions/ difficulties as they arise. | Able to provide expert guidance to colleagues in own team, other work areas and institutions to develop understanding and resolve complex problems. | CV, application, interview |
| Other skills and behaviours | Understanding of relevant Health & Safety issues.  Positive attitude to colleagues and students. |  | CV, application, interview |
| Special requirements | Able to attend national and international conferences to present research results. |  | Application, interview |

**JOB HAZARD ANALYSIS**

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

|  |  |
| --- | --- |
| 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.

|  |  |  |  |
| --- | --- | --- | --- |
| **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: | X |  |  |
| Frequent hand washing | X |  |  |
| Ionising radiation | X |  |  |
| **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 | X |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) | X |  |  |
| Gross motor grips | X |  |  |
| Repetitive reaching below shoulder height | X |  |  |
| Repetitive reaching at shoulder height | X |  |  |
| Repetitive reaching above shoulder height | X |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public |  | X |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |