



Candidate Information

Position:	Lecturer in Mechanical and Aerospace Engineering
School/Department:	Mechanical & Manufacturing Engineering
Reference:	20/108501
Closing Date:	Thursday 7 January 2021
Salary:	£36,914 to £51,034 per annum.
Anticipated Interview Date:	Wednesday 3, Tuesday 9 & Wednesday 10 February 2021
Duration:	3 years

JOB PURPOSE:

To undertake original and internationally recognised research in an area which will further strengthen and broaden the expertise in the School Clean Energy research theme, and provide complementary expertise that can contribute to ongoing work in the fields of Simulation Technologies, Composite Materials and Structures, Advanced Manufacturing and Processing, Future Aircraft and/or Biomaterials/Biomechanics.

To contribute to the School's undergraduate and postgraduate teaching programmes in areas as may be identified by the Head of School and Director of Education.

MAJOR DUTIES:

Teaching:

1. Deliver high quality teaching and assessment activities in identified areas, assigned by the Director of Education and approved by the Head of School. This will include formal lectures, tutorials, assignments, coursework, project supervision and general student monitoring at undergraduate and postgraduate level.
2. Provide constructive feedback to students. Seek ways of improving performance by reflecting on teaching methods and obtaining and analysing feedback.
3. Contribute to the design and revision of course units.
4. Contribute to curriculum development.
5. Routinely communicate complex and conceptual ideas to students as well as to peers using high level skills and a range of media.
6. Contribute to the enhancement of quality teaching within the School, ensuring that course design and delivery comply with the appropriate benchmarks and regulations.
7. Strive to improve all aspects of the student experience such as guidance, delivery of course material, assessment, and feedback leading to better employability.
8. Contribute to the School's International Summer Schools.

Research:

1. Develop and lead original research which will attract competitive external funding.
2. Present results of research work at conferences and publish results in high quality academic journals with volume commensurate with stage of career.
3. Source and secure external funding from relevant funding bodies at a level commensurate with stage in career, in collaboration with other School staff, to ensure continued growth of the School's research profile.
4. Collaborate on original research with colleagues in other institutions.
5. Supervise research students according to university regulations.
6. Develop and contribute to the research strategies of the School and maintain a reputation as an expert in own subject area.
7. Direct, coach and develop research staff, where appropriate.
8. Ensure that research projects are completed on time and within budget.
9. Build a research profile that will secure measures of esteem commensurate with stage in career.

Administration/Contribution to the Community:

1. Contribute to the development and implementation of School plans and Faculty Vision.
2. Be an active participant in up to two operations teams within the School set up to support the Head of School in meeting the School's objectives.
3. Provide pastoral care for students, as far as practicable, so that relevant issues are dealt with in a timely, sympathetic and effective manner.
4. May sit on major University committees.
5. Contribute to the School's outreach strategy by designing or delivering community outreach programmes and developing external links.
6. Contribute, where appropriate, to the School's Executive Education Portfolio.
7. Contribute significantly to the development and running of the School/area by taking on appropriate School co-ordinating roles. Such duties may include, for example, Advisor of Studies, QAA Aspect Co-ordinator, Module/Year/Programme Co-ordinator or other recognised official University roles.

Planning and Organising:

1. Plan and set teaching and research objectives over the duration of the post.
2. Plan and manage own teaching and tutorials.
3. Prepare research proposals for submission to external funding.

Resource Management Responsibilities:

1. Provide academic leadership to those working within programme areas, as course leader or equivalent, by for example co-ordinating the work of others to ensure that courses are delivered effectively or organising the work of a team by agreeing objectives and work plans.
2. Develop and manage staff and resources, in support of major research, teaching and administrative activities.

Internal and External Relationships:

1. Lead and develop internal networks for example by participating in University committees.
2. Lead and develop links with external networks, for example, with external examiners and assessors.
3. Develop links with external contacts such as other educational bodies, employers, and professional bodies to foster collaboration.

ESSENTIAL CRITERIA:

1. Honours Degree or Equivalent in Mechanical Engineering, Aerospace Engineering or closely related Engineering subject.
2. Hold a PhD in a relevant research field.
3. Demonstrate a minimum of 3 years postdoctoral research experience in relevant area.
4. Research interests relevant to the fields of clean energy/clean propulsion and/or low emissions transportation, supported by sound knowledge in one or more of thermodynamics, fluid mechanics, computational fluid dynamics, aeroacoustics, aerodynamics and/or other closely related areas.
5. Research interests that are sustainable and which complement or enhance existing activities within the school.
6. Record of high quality, relevant, research publications commensurate with stage of career.
7. Relevant experience of tutoring and demonstrating at university level.
8. Possesses sufficient breadth and depth of specialist knowledge to deliver UG/PGT teaching in the fields of computational fluid dynamics, thermodynamics, fluid mechanics, propulsion, aerodynamics and/or other closely related areas.
9. Evidence of appropriate administrative experience.
10. Ability to advance the research and teaching goals of the School.
11. Ability to strengthen the School's national and international research networks.
12. Must demonstrate evidence of ability to communicate clearly and effectively to students, academic colleagues and to professional bodies and managers/executives.
13. Ability to provide effective leadership.
14. Evidence of good interpersonal skills and the ability to work both independently and as part of a team.

DESIRABLE CRITERIA:

1. A relevant higher education teaching qualification.
2. Hold Chartership (CEng) or equivalent of a relevant professional engineering body.
3. Evidence of sourcing and securing funding from recognised funding bodies.

4. Relevant industrial experience or relevant experience of cooperative work with industry.
5. Evidence of development, delivery and assessment of undergraduate courses in higher education.