

Department of Aeronautical and Automotive Engineering (AAE) / School of Aeronautical, Automotive, Chemical and Materials Engineering (AACME)

## **University Teacher in Advanced Vehicle and Aerospace Systems (Student Experience Focus)**

Job Ref: REQ260216

### **School/Department summary:**

The successful applicant will be based in the school of AACME and aligned to the Department of Aeronautical and Automotive Engineering (AAE), joining an active teaching and research community. We are one of the largest departments for Aeronautical and Automotive Engineering in the UK, providing world-leading engineering solutions to tackle today's global challenges. Our Aeronautical Engineering and Automotive Engineering courses prepare our students to tackle the future of global transport. In Aeronautical Engineering, we explore the next generation of aviation, from environmentally sustainable propulsion to increasing automation and unmanned aircraft systems, equipping students to solve the challenges shaping the future of flight. In Automotive Engineering, students gain specialist knowledge in the rapidly evolving automotive sector, where electrification, connectivity and digital engineering are transforming how vehicles are designed and built. Together, these courses focus on equipping graduates with the skills and expertise needed to drive innovation across the aviation and automotive industries.

### **Job Description**

**Job Family and Grade:** Specialist and Supporting Academic Grade 7

#### **Job Purpose**

The post holder will contribute to teaching across undergraduate and postgraduate programmes within the School's discipline areas, with particular involvement in Aeronautical and Automotive Engineering. The role includes developing and delivering lectures, tutorials, practical workshops and project-based learning, as well as supporting collaborative group work with students and colleagues. The post holder will also participate in assessment activities, contribute to curriculum development and provide constructive feedback to students. In addition, they will play a leading role in development of pastoral support, helping to enhance the overall student experience.

The successful candidate will contribute to teaching in areas such as automotive and aeronautical systems, including vehicle testing and calibration, system architectures, propulsion systems, motors and drives, thermal and energy management, computing and safety and certification. They will also support teaching related to the design and integration of complex engineering systems, covering systems engineering principles and preliminary design methods from initial concept through to operational implementation. While expertise across all subject areas is not required, candidates should demonstrate a strong passion for the aeronautical and automotive disciplines, alongside a willingness to learn and develop their knowledge where needed. We are particularly seeking individuals who can bring innovative teaching approaches that prioritise and enhance student engagement.

#### **Job Duties**

##### **Teaching**

- To work with colleagues in the department/School to deliver an exceptional learning experience for students in relevant Engineering topics.
- To teach and inspire undergraduate and postgraduate students, and to design and conduct associated assessments.

- To act as Module Leader and to engage in the evaluation and development of modules for which you have responsibility.
- To engage in pedagogy development and innovation to ensure teaching practice is current. Promote the use of a range of methods and techniques in teaching, learning and assessment.
- To prepare high quality course materials and ensure that it is available to students.
- To deliver teaching including individual and group tutorials, seminars and lectures. To supervise practical sessions and individual/group student project work.
- Manage projects relating to own area of work and the organisation of external activities such as visits, placements and field trips.
- To provide academic and pastoral support to undergraduate and postgraduate students.
- To take a leadership role in the development of pastoral support to enhance student wellbeing.
- To work closely with the relevant programme leaders and other colleagues and to take a leading role in the development of our undergraduate and postgraduate programmes.

### ***Related Leadership Activities***

- To carry out specific administrative roles and functions as may be reasonably required. This could include acting as a programme leader or taking on other leadership roles.
- To work effectively with relevant administrative, technical and academic staff in the department, School and across the University.
- To take part in, or to lead, staff discussion groups or a department/School committee.
- To embed EDI into the design and delivery of modules and programmes
- To engage in training programmes in the University (e.g. through Staff Development and Centre for Academic Practice) which are consistent with your needs and aspirations and those of the School.
- To engage fully with the GLOW review process and your professional development.
- To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post. This may include marketing, representation of the subject at student recruitment events, industry collaboration and placement development.

### **Points To Note**

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility outlined in the document.

### **Organisational Responsibility**

Reports to the relevant Head of Department or another senior colleague.

## **Person Specification**

Your application will be assessed based on the essential and desirable criteria listed below.

Applicants are strongly encouraged to explicitly demonstrate how they meet each essential (and desirable) criteria at the application stage. The criteria that you need to demonstrate in your application will be listed as Stage 1 in the table below.

Stages of assessment are as follows:

- 1 – Criteria measured within the Application
- 2 – Criteria measured at Test/Assessment Centre/Presentation
- 3 - Criteria measured at Interview

**Essential Criteria:**

Area	Criteria	Stage
Experience	Mentoring, training, or advisory experience either in industry, educational establishment or in academia.	1,3
	Experience of working in a related high-quality industrial, professional or academic environment.	1,3
	In-depth knowledge of innovative teaching and learning practices.	1,2,3
	Experience of pastoral care and associated initiatives to support students or company staff.	1,2,3
	Experience or knowledge of engineering practice, with focus on at least one of three areas: Aeronautical, Automotive or Space Engineering.	1,2,3
	Experience of successfully leading and managing projects of company staff or taught students.	1,3
Skills and abilities	Excellent organisational skills and the ability to work independently and on own initiative.	1,3
	Flexible approach to working and an ability to prioritise tasks, with a capability of working under pressure to meet deadlines.	1,3
	Excellent team working skills. Good verbal and written communication and interpersonal skills.	1,2,3
	Ability to provide tutorial and pastoral advice to students.	1,3
	Excellent skills in the presentation/communication of relevant engineering subjects. Able to demonstrate creativity in approach to presenting/communicating in different formats and contexts such as lectures, presentations, tutorials, group work, project supervision.	1,2,3
	Excellent IT skills with particular reference to in person teaching and remote delivery.	1,3
Training	Commitment to and evidence of continuing professional development.	1,3
Qualifications	An outstanding educational profile up to and including first degree and/or Masters in a relevant Engineering discipline. Alternatively, significant relevant professional experience.	1
Other	Uphold and actively contribute to the University's commitment to Equity, Diversity and Inclusion.	1,3

**Desirable Criteria:** These are skills, experience and competencies that are additional extras that may be used to narrow the pool down if we receive a high volume of applications that meet the essential criteria.

Area	Criteria	Stage
Experience	Track record and experience of Engineering teaching in the Higher Education or industrial environment.	1,3
	Experience of teaching and assessment at university level for both campus-based and remote students.	

	<p>Experience of management in an industrial or academic environment with a view of transferring this experience into the teaching of management to aeronautical and automotive engineering students.</p> <p>Experience of managing complex interdisciplinary design projects.</p> <p>Experience of work in or in collaboration with business or industry.</p>	
Skills and abilities	<p>Ability to supervise and mentor early-career colleagues</p> <p>Ability to take part in module and programme development.</p> <p>Knowledge of the challenges faced in recruiting to and sustaining UK HE engineering degree programmes.</p> <p>Excellent technical skills in a variety of software tools and applications pertinent to the delivery of engineering teaching.</p>	1,3
Qualifications	<p>Achieved or willingness to progress towards appropriate professional status such as Fellowship of the Higher Education Academy.</p>	1

## Conditions of Service

The appointment will be subject to the [University's Terms and Conditions of Employment](#) relevant to the job grade.

## Shared University Responsibilities

As a member of the Loughborough community, you are expected to:

- Take reasonable care of yourself, others and the environment, and to prevent harm by your acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Sustainability Policies & Procedures.
- Support and contribute to the University's commitment to Equity, Diversity, and Inclusion (EDI), while carrying out all duties in a way that respects these principles and upholds the right to free expression. Further information about EDI at Loughborough and our strategic aims is available on our website.

## Our Purpose, Vision, and Values

Our purpose, Vision and Values underpin all that we do and shape how we work together at Loughborough.

We're proud to promote our values: **Adventurous, Collaborative, Creative, Authentic** and **Responsible**. Our people bring these values to life every day, and they are central to the positive and supportive culture that makes Loughborough unique.

If you join us, you'll be encouraged to bring these values to life in your own work and contribute to the positive, supportive culture that makes Loughborough unique. Read more about our [vision and values](#).

## Our Accreditations

	<p>We strive to create a culture that supports equity and celebrates diversity throughout the campus. The University holds a <a href="#">Bronze Athena SWAN award</a> which recognises the importance of support for women at all stages of their career.</p>
	<p>We are proud to be a <a href="#">Race Equality Charter Member</a>. The Charter aims to improve the representation, progression and success of all minority ethnic staff and students within higher education and address issues of racism within higher education institutions (HEIs).</p>
	<p>We are proud to be a Disability Confident Employer and have adopted a proactive approach to employing disabled people and to creating a more diverse workforce. We ensure that our recruitment processes are inclusive and accessible. We guarantee to offer an interview to all applicants who have declared a disability, provided that the essential criteria for the role are met. We proactively anticipate and provide reasonable adjustments and support existing employees who acquire a disability or long-term condition to thrive in the workplace.</p>
	<p>We are a real living wage employer, and our Living Wage Employer Mark shows our commitment to paying our staff according to the cost of living.</p>
	<p>We are proud supporters of the <a href="#">City of Sanctuary movement</a> and delighted to be recognised as a University of Sanctuary. This national network brings together, university staff, lecturers, academics, and students, who together work to make Higher Education institutions places of safety, solidarity and empowerment for people seeking sanctuary.</p>

**As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.**