



## **JOB DESCRIPTION**

**Title of the post:** Engineering Teaching Assistant  
[Permanent / Full Time]

**Department:** Engineering

**Reporting to:** Engineering Laboratory Manager

### **The University**

#### **Background**

Harper Adams University is the leading UK Higher Education (HE) institution focused on the land-based and food supply-chain sectors with an important national role in these subject areas.

Situated on a single campus in rural and scenic Shropshire, the University, and its surrounding area, provide an excellent working and living environment for staff and students alike, yet the University campus is only one hour from the UK's second city of Birmingham. Around 3,000 HE students attend the University, primarily on sandwich courses which include a year-long industrial placement. Undergraduate and postgraduate degrees are offered. The University also welcomes individuals who wish to undertake CPD or similar professional training to support their careers in the agri-food chain and rural industries.

The University was founded by Thomas Harper Adams in 1901 on the original farmland of the Harper Adams Estate. The University estate includes amenity areas, woodland, and a commercial farm of 205 hectares; with rented land the total area farmed is approximately 640 hectares, spread over several locations with cereals, potatoes, forage maize and grassland carrying a dairy herd, sheep, beef, pig and poultry units.

The Privy Council awarded taught degree awarding powers to Harper Adams in 1996 and research degree awarding powers in 2006. Full University Title was granted by Her Majesty's Privy Council in December 2012. The University changed its legal status to that of a Company Limited by Guarantee in July 2012 and remains one of a small number of Universities which are Registered Charities. Her Royal Highness The Princess Royal became the University's first Chancellor in 2013.

#### **Academic Provision**

The University offers a wide range of courses including Foundation and Honours degrees, in addition to shorter awards designed to meet the continuing professional development needs of those already in the workplace. The subjects are wide ranging and cover Agriculture, Animal Studies, Business, Countryside, Engineering, Food and Land & Property Management. The University has also focused on developing its postgraduate education and research and there are a growing number of postgraduate students at both diploma, masters and PhD level.

Harper Adams has built up an international reputation for the quality of its courses and has achieved the highest possible ratings in recent Quality Assurance Agency reviews, and holds a Gold Teaching Excellence Framework (TEF) award. There is active encouragement of research and the University took part in the last Research Excellence Framework (REF) exercise. 56% of our submitted research was rated either internationally excellent or world leading and 100% was rated of international quality. Our extensive programme of research and education for professionals in the land-based and food chain sectors supports a high profile of business and community reach-out work, short course delivery for businesses and technology

transfer activities supported by strong industry links and partnerships with companies such as JCB and Marks & Spencer amongst many others.

## **Recognition**

Harper Adams is consistently positioned highly in a range of national ratings, performance measures and league tables.

In the period since 2011, Harper Adams has won six Times Higher Education Awards including Outstanding Fundraising Initiative (2014), and has been shortlisted for fourteen other THE awards. In 2018, the Times Higher has shortlisted the university for the prestigious title of University of the Year, putting Harper Adams in the top six universities in the country. The finals are in June 2018.

In the 2016 and 2017 Whatuni? Student Choice Awards, based on student reviews, Harper Adams took the title of University of the Year and won the Student Support and Job Prospects gold awards, plus silver and bronze in further categories. In 2018 the University was runner up for the University of the Year title and won 3 gold awards, 3 silver and 3 bronze. It is the only University to win Student Support since the awards began four years ago and has won the category for best job prospects for three years running and best courses and lecturers for two years running.

Harper Adams ranked second in the 2016 Times Higher Education Student Experience Survey. In the Times and Sunday Times Good University Guide 2017, the University was ranked 36th, the highest position yet achieved by a post-1992 university, and was awarded the title of Modern University of the Year. In 2017 it was the highest ranked modern University for the second year in a row. In the QS World Rankings for Agriculture and Forestry published in March 2018, Harper Adams was ranked second in the UK for academic reputation and second in the world for its reputation with employers.

## **Facilities**

Harper Adams has extensive, well-equipped facilities and is constantly investing in its campus. Facilities include a range of modern teaching facilities and an extensive library, a variety of IT suites including an engineering design centre, newly extended laboratory facilities, a field laboratory and a livestock project centre, a glasshouse complex, an agricultural engineering unit with a large covered soil working area and a number of sustainable technology installations. In 2013 a new teaching building and a new agricultural engineering innovation centre opened. In 2015/16 these were followed by two further buildings, one for veterinary services and one for entomology, and new halls of residence. Further new facilities opened in the period since 2017 include new laboratories, an Agri-Tech Innovation Hub and SMART Dairy Unit. Capital funding to support the development of many of these facilities has been provided through the work of the Development Trust. The University provides a range of training and professional development opportunities via its staff development programme.

## **Catering and Sports Facilities**

The University's Students' Union operates a small gym and squash courts that staff may use on the payment of a nominal fee. The University has an open-air swimming pool and bowling green that are available for staff use during the summer period and new tennis courts have recently been developed. A variety of University catering outlets provide access to lunch facilities on campus.

For further details about the University, please visit our website:

<http://www.harper-adams.ac.uk>

## **The Teaching Assistant and Technician Team**

This Team sits alongside the Lecturers and Students providing technical and practical support to both. Using machines and Hi Tech equipment to produce teaching aids and test rigs. Stage manage Lectures, Workshops, Laboratories, Soil / Machinery Halls, testing grounds and Engineering fields.

## **Main Duties and Responsibilities**

You will play a key role in supporting the Applied Engineering building & Advanced Engineering Innovation Centre. The main duties of the role include:

### **Areas of Responsibility**

1. The operation, demonstration and maintenance of departmental vehicles, plant and machinery.
2. The preparation and maintenance of equipment used for demonstrations, practical class work and project work.
3. Using Vehicle Mechatronics knowledge to diagnose faults, alter ECU's and understand Sensors.

### **Design and development of teaching and research resources**

4. Design and development of engineering systems for teaching & learning.
5. Develop teaching and learning resources to aid student learning of mechatronic design elements and machines.
6. Assisting academic staff and students during practical classes, demonstrations, research and project work.
7. Join the engineering staff in ensuring the effective delivery of teaching, research and commercial work undertaken within the department.

### **Pedagogical duties**

8. Work with individual students and design teams to support, advise, challenge, and debate their ideas, design proposals, make-v's-buy decisions and to aid and enhance the learning process.
9. Be responsible for the identification, selection and purchase of systems and components for both staff and students.
10. Supervise, instruct and support students in the manufacture of prototype components and machines
11. Operation, demonstration and instruction to students in mechatronics instrumentation and related skills.

### **Responsibility for compliance**

12. Ensuring that personnel using the workshops and teaching facilities comply with the requirements of the Health & Safety at Work Act and other regulations, including the University and department policy.
13. Responsibility for the control and maintenance of the department's growing stock of instrumentation equipment (stock is maintained and controlled via a Wasp asset management system) and keep all equipment under safe storage whilst maintaining a close control on loss and damage.
14. Be responsible for maintaining calibration records for instrumentation equipment as well as sourcing, managing or performing calibrations as necessary.
15. Be responsible for the operation and maintenance of electronic access control systems.

### **Responsibility for technical tasks**

16. The development, construction, modification, preparation and maintenance of equipment used for teaching, demonstrations, practical class work and project work, particularly in relation to mechatronics.
17. Be responsible for the operation of precision machining equipment, both manual and programmable, to produce prototype components e.g. laser cutter, vinyl printer, 3D printer.

### **Additional responsibilities**

18. Attending courses, conferences and meeting for the purposes of personal development.
19. Taking an active part in the corporate life of the University College.
20. Such other duties as may reasonably be requested by the Line Manager.

## Personal Specification

	<b>Essential</b>	<b>Desirable</b>
Qualifications	5 GCSE's / O Levels grade C or above including Maths & English  HND Mech/ Prod with Merits.	BEng/Bsc Science or Engineering subject 2:2
Experience	Working with and maintaining vehicles and/or powertrains  Design / make electrical 'additions' to vehicles.	Engineering drawings  Electrical drawings  Circuit Wizard.
Knowledge/Skills	Current UK Driving Licence  Health and Safety awareness.	Tractor, Tele-Handler or Excavator Licenses.
Personal Qualities	Excellent communication skills and the capability to develop highly effective working relationships with staff will be essential.  A proven ability to work within timeframes and meet deadlines while maintaining an attention to detail with is key	Sociable.  Enthusiastic.

## Conditions of Service

The national recommendations which have arisen from the negotiations between UCEA and the unions recognised at national level, the Joint Negotiating Committee for Higher Education Staff (JNCHES), directly affect the terms and conditions insofar as they have been adopted by the Board of Governors.

<b>Salary</b>	The commencing salary will be within the range £27,025 - £29,515 per annum. The point of entry will be dependent upon relevant qualifications and experience. Salaries are paid monthly, in arrears, by credit transfer on the 28 <sup>th</sup> day of the month.
<b>Contract Term</b>	This is a permanent, full time post. The employment may be terminated during the course of the contract by either party giving one's months' notice in writing.
<b>Hours of Work</b>	The routine working week is 37 hours over Monday to Friday, inclusive. There may be a requirement for overtime working from time to time and time off in lieu may be allowed for agreed hours worked in excess of 37 per week.
<b>Holidays</b>	The annual holiday entitlement is 22 working days, plus 3 University closure days and Bank Holidays. Annual holiday entitlement rises to 25 working days with 5 years' service. The holiday year runs from 1 April to 31 March and in the holiday year in which the employment commences or terminates the holiday entitlement will accrue on a pro-rata basis for each complete week of service. The timing of holidays is subject to the agreement of the Line Manager.
<b>Sick Leave</b>	During periods of certified sickness the post-holder will be eligible to receive sick pay in accordance with the University Sick Pay Policy. The payment of sick pay is subject to compliance with the University rules for the notification and verification of sickness absence, details of which will be provided to the successful applicant upon commencement of employment.
<b>Pension</b>	The post-holder will be entitled to join the Local Government Pension Scheme (LGPS), subject to its terms and conditions. Full details of the Scheme will be provided to the successful applicant upon commencement of employment.

**Exclusivity of Service**

You are required to devote your full-time attention and abilities to your duties during working hours and to act in the best interests of the University at all times. Accordingly, you must not, without written consent of the University, undertake employment or engagement including external consultancy, which might interfere with the performance of your duties or conflict with the interests of the University.

It follows that, regardless of whether you are employed on a full-time or part-time contract, you are required to notify your line manager of any employment or engagement which you intend to undertake whilst in the employment of the University (including any such employment or engagement which commenced before your employment under this contract). Your line manager will then notify you within 10 working days whether such employment or engagement is prohibited.

**References**

Candidates should ensure that they provide full details of the name and postal address of their referees. Please include e-mail addresses and telephone numbers wherever possible. Referees should include your present, or most recent, employer.

**Application Procedure:**

All applications should be completed and submitted using the Harper Adams e-Recruitment programme at <http://jobs.harper-adams.ac.uk>

**To be submitted no later than midnight on Friday 28 June 2019**