

## **Job Description**

**Role Title:** Specialist Acoustics Technician

**School / Dept:** School of Science, Engineering and  
Environment

**Reference:** MPF4356

**Grade:** Grade 6

**Full or Part time:** Full Time

**Hours:** 36.25

**Reports to:** Acoustics Calibration Laboratory Technical  
Manager

## Overview

### The Acoustics Laboratories

Salford has been a centre of excellence in Acoustics for over 60 years. Our state-of-the-art Acoustic Laboratories are home to a team of Engineers and Technicians carrying out a wide range of testing, calibration and research ranging from UKAS accredited standard tests to large scale bespoke measurement programmes. The Laboratories are closely integrated with the Acoustics Research Centre with a long history of conducting high quality original research funded by research councils, government bodies, and industry. Salford's research in Acoustics has led to products and patented inventions that companies make and sell worldwide, as well as regulations and standards used in the UK, Europe and Internationally. In the most recent government Research Excellence Framework (REF 2014) we were described as having achieved 'outstanding impact in acoustics'.

The Acoustic Calibration Laboratory is one of three commercially focussed units within the Acoustics Laboratories, providing an unrivalled accredited acoustic calibration service to UK and international customers. The strategic vision for the Calibration Laboratory is to consolidate our position as the UK's leading centre of for acoustic metrology in the UK, and become one of the leading centres in the world. This aim supports the University's primary strategic objective of establishing and maintaining collaboration with industry.

In order to ensure the accuracy and reliability of our test work we operate according to test procedures accredited by the United Kingdom Accreditation Service (UKAS). The post holder will work in accordance with this system which covers all aspects of the work, the testing itself, and recording of data, reporting, communication, contracts, financial aspects and confidentiality. The reliability and confidentiality of the test data are paramount.

The post holder will report to the Calibration Laboratory Centre Lead and will be supported by the Laboratory Manager of the Calibration Laboratory. The post will be based at University of Salford but may involve some travel for meetings with clients and other stakeholders.

### Role Purpose

The purpose of the post is to assist the Laboratory Manager of the Acoustics Calibration Laboratories to conduct calibrations and other testing; and also to support laboratory development work. The main calibrations will be sound level meters, microphones and calibrators. Development work will be Python based to improve efficiency of standard testing, and to feed into other commercial contracts in the Acoustics Laboratory. We also carry out a range of other acoustical projects that the postholder will support as and when required according to standard and sometimes non-standard procedures. On the job training will be offered as part of the package and the post holder can expect to acquire a range of sought-after skills and experience.

The post holder may also be required to assist staff, students and researchers with student projects and research from time to time.

## **Principal Duties & Responsibilities**

- Performing reliable recording, entry and numerical analysis of customer test and calibration results according to standard and occasionally non-standard procedures. Developing spreadsheet templates to manage results. Validating spreadsheets/software developed by others;
- Develop and validate automated Python based laboratory tools to improve efficiency and accuracy;
- Support acoustic contracts elsewhere in the acoustics commercial unit with programming and measurement skills;
- Setting up equipment for customer testing to written procedures and establishing best measurement processes (for example determining microphone positions for a sound power test to fulfil standard criteria). Identifying and resolving equipment issues and utilising support when required;
- Preparing accurate and timely customer reports mostly to standard templates, but occasionally writing non-standard reports for bespoke tests. Checking the accuracy of reports produced by others, and authorising reports before final issue to customers;
- Following procedures, for example on equipment maintenance, environmental conditions and external calibration procedures to ensure quality and traceability of results. Initiating measures to remedy issues (for example equipment repairs, replacements, maintaining environmental conditions etc);
- Co-ordinating and logging goods into and out of the laboratory; liaising with customers on delivery/return dates and resolving queries with items received to avoid delays to scheduled customer tests/calibrations;
- Supporting the Quality Manager in maintaining laboratory administrative quality systems; suggesting improvements to current procedures for submission to the Quality Manager to support maintenance of UKAS accreditation;
- Contributing to the development of new commercial initiatives by identifying opportunities and developing procedures;
- Provide technical expertise and support to students and postgraduate researchers in an assigned project, demonstrating test procedures and equipment use with a high level of understanding of requirements;
- Dealing with clients on the phone, by email/ letter, and in person, maintaining confidentiality and providing advice and guidance to best fulfil their requirements;
- Bringing to the attention of managers any matters relating to the health and safety of staff, students and visitors;

- Working towards continuous improvement in order to improve the efficiency, productivity and quality control within the test laboratory;
- Prioritise tasks between stakeholders, and communicate any issues that are impeding progress to reduce impact on timescales;
- Perform any other duties appropriate to the grade as may be required by the College Registrar/Head of School/Head of Division etc;
- Comply with the personal health and safety responsibilities specified in the University Health and Safety policy;
- Engage with the University's commitment to deliver value for money services that optimise the use of resources by maintaining a cost-conscious approach when undertaking all duties and aspects of the role;
- Promote equality and diversity for students and staff and sustain an inclusive and supportive study and work environment in accordance with University policy;
- This role detail is a guide to the work you will initially be required to undertake. It may be changed from time to time to meet changing circumstances. It does not form part of your Contract of Employment.

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Person specification follows on next page

## Person Specification

The successful candidate should demonstrate the following, which are 'Essential' (E) or 'Desirable' (D), and will be assessed by Application Form (A), Interview (I), Presentation (P), or Test (T), as indicated.

### Qualifications

1. Degree or equivalent in a numerate science subject including Acoustics, Physics or Engineering (E) (A)
2. Membership eligibility for the Institute of Acoustics, the Institute of Physics or the Institute of Chartered Engineers (E) (A)
3. Clean driving licence for occasional fieldwork and site visits (D) (A)

### Background and Experience

4. Experience of taking scientific measurements, preferably of acoustics and/ or vibration, in laboratory and/ or field conditions (E) (A) (I)
5. Experience in scientific record keeping (E) (A) (I)
6. Experience of python programming and utilising coding to interpret standards (E) (A) (I)
7. Experience of working to standard procedures (E) (A) (I)
8. Experience of using IT for numerical calculations (E) (A) (I)
9. Experience of setting up and operating acoustics or audio equipment or other scientific instrumentation (E) (A) (I)
10. Experience of working to deadlines (E) (A) (I)

### Knowledge

11. Acoustic standards particularly relating to Calibration (E) (A) (I)
12. The basic principles of acoustics (E) (A) (I)
13. Numerical analysis of scientific results using spreadsheets and other software (E) (A) (I)
14. Quality and management systems/procedures. (D) (A) (I)
15. Acoustics and audio equipment or other scientific instrumentation (E) (A) (I)

16. Understanding the paramount importance of maintaining client confidentiality (E) (A) (I)

### **Skills and Competencies**

17. The aptitude to follow written procedures, including standards and in-house procedures, carefully and accurately and to make correct records as necessary (E) (A) (I)

18. The ability to perform reliable numerical analysis of test results according to standard procedures. (E) (A) (I)

19. The ability to produce accurate and timely technical reports. (E) (A) (I)

20. Ability to calibrate and commission laboratory hardware/software equipment for testing and data analysis. (D) (A) (I)

21. The ability to liaise with clients, on the phone, by email/ letter, and in person, to maintain confidentiality. (E) (A) (I)

22. The ability to maintain and enhance at all times the outstanding reputation of Acoustics at the University of Salford, with Clients, students, visitors and others. (E) (A) (I)