

JOB DESCRIPTION
Engineering Department - Experimental Officer
Vacancy Ref: A2525

Job Title: Experimental Officer in Bioengineering: Biomaterials and Tissue Engineering	Present Grade: 7
Department/College: Engineering	
Directly responsible to: Professor Ihtesham Rehman	
Supervisory responsibility for: Undergraduate and Postgraduate students	
Other contacts <p>Internal: Academic, Professional Services and Technical staff in Engineering. Academics and technical staff in other departments, matters associated with Bioengineering, Chemical Engineering and the Material Science Institute</p> <p>External: Academic and industrial partners in the field of bioengineering, biochemical engineering, materials sector and the wider chemical engineering, materials profession, and especially key industrial sectors. Potential students and their parents' at open and research days.</p>	
<p>Purpose of the role: To be responsible for the establishment of new facilities for biomaterials, tissue engineering and biospectroscopy, in particular cell culture and biomaterials, and developing 2D and 3D TE models. To also develop standard operating procedures in the laboratories as required in conjunction with the University Health and Safety arrangements.</p> <p>Major Duties: Assist in the development of research and teaching in bioengineering in both cell biology, bio-spectroscopy and biomaterials in the context of:</p> <ul style="list-style-type: none"> (i) Contributing to the day-to-day running of the Raman and Infrared (IR) micro-spectroscopy facilities, cell culture facilities including the upkeep of safety documentation and the organisation of training for new staff and postgraduate and undergraduate students. (ii) To analyse the Raman spectra of biological molecules, scaffolds and cell-scaffold complexes using a variety of techniques and available software packages. (iii) Participating and helping in the organisation of regular project and group meetings with academics at Lancaster including preparation and presentation of talks, posters and reports for dissemination of data. (iv) Establishing and conducting 2D and 3D cell biology experiments to investigate cell invasion of fabricated scaffolds using IR and Raman spectroscopy, including cell culture, designing and fabricating the 3D scaffolds and carrying out micro-spectroscopic studies of the cell-scaffold complexes. (v) To undertake research-led teaching and the running of undergraduate laboratories. (vi) Assist in the supervision of postgraduate and final year undergraduate project students. <p>Other Duties: To carry out any other duties commensurate with the grade, and which contribute to the wider activities of the department as requested by the Head of Department, or their nominated representative</p>	