Job Description – Project Officer, Astrobiology Research Group

Full time
Permanent
Grade 7
Walton Hall, Milton Keynes-based, with some travel

The Role
The post-holder will be welcomed into an interdisciplinary research group investigating the feasibility of life beyond the Earth, and the associated social, legal and economic implications. They will contribute to the Astrobiology Research Group’s objectives by being responsible for the operational running of the Group’s environmental simulation chambers, including maintenance of equipment, experimental preparation, Health and Safety. They will also contribute to research projects by identifying and implementing innovative experimental techniques.

Key responsibilities

• Ensure optimum operation of the environmental simulation chambers, including the organisation of ancillary service contracts, fault diagnosis, instrument maintenance and tuning;
• Work with the Laboratory Manager to ensure efficient scheduling of experiments;
• Work with gases at high pressures, including preparation of bespoke gas mixtures;
• Lead and manage the in-house training of research personnel (postgraduate students, postdoctoral research associates, technical staff, visiting researchers and academics) in operation of the facilities as required, data logging methods and software, as appropriate, and all relevant Health and Safety matters;
• Undertake experiments for occasional or infrequent collaborators (both internal and external) as directed by the Laboratory Manager. The experiments will be primarily planetary experiments, but may include biological materials, manufactured components, etc. Process results and prepare reports of results obtained;
• Liaise with users and collaborators (both internal and external) for the design of experiments and data reduction. Prepare material for manuscripts as required;
• Develop new experimental protocols and participate in the development of the instrument hardware and data processing procedures. Present the results of these developments in international journals and at relevant national and international conferences;
• Be responsible for negotiating best prices for consumables and laboratory equipment;
• Ensure that Good Laboratory Practice procedures comply with current Health and Safety legislation. Ensure that all Risk Assessments are up to date and reviewed and that Safe Operating Procedures are written and complied with;
• To have a strong commitment to the principles and practice of equality and diversity;
• To undertake other duties, as directed by the Group’s lead.
Person Specification

Skills and experience

**Essential:**
- Undergraduate degree or equivalent in a STEM related subject;
- Experience in developing experimental protocols;
- Capable of dealing with the physical demands of the position;
- Strong communication and organisational skills;
- Good team player who can work under their own initiative;
- Relevant health and safety knowledge and an understanding of H&S legislation, including COSHH;
- Practical IT experience in the suite of Microsoft Office programmes;
- Data processing experience.

**Desirable:**
- Relevant technical knowledge of working with high pressure gas system;
- Experience of working with high pressure chambers in a technical role;
- Knowledge of electronics or instrumentation engineering. Experience in writing software code to control/automate laboratory instrumentation;
- Experience of activities in an education establishment;
- Working towards professional registration RSciTech, RSci or CSci.

About the Astrobiology Research Group

Research England has recently awarded the Open University Astrobiology Research Group an Expanding Excellence in England grant worth £6.7 million. This will allow the Group to expand to bring together expertise in technology, international development and governance to address the scientific and governance challenges associated with the advancement of astrobiology and related space exploration missions. This will result in a multi-disciplinary research environment with members spanning three Faculties: the Faculty of Science, Technology, Engineering and Mathematics, the Faculty of Business and Law, and the Faculty of Arts and Social Sciences.

The primary aims of this multi-disciplinary group will be as follows:
1. furthering the understanding of the limits of life and potentially habitable environments in the Solar System;
2. identifying chemical and geochemical signatures that could be used as evidence of life;
3. investigating the survivability of microorganisms and their biosignatures;
4. educating and engage with the space sector, policymakers and the public in the UK and ODA countries;
5. examining critically the governance and ethical implications of astrobiology-related space missions to develop and enhance governance frameworks.

The OU Astrobiology Research Group is committed to building an inclusive research environment. The Group supports flexible working arrangements, within the limits of the post, and particularly welcomes applications from groups traditionally under-represented in STEM.
About the Unit

Faculty of Science, Technology, Engineering & Mathematics
The Faculty of Science, Technology, Engineering and Mathematics (STEM) is comprised:

- School of Computing & Communications
- School of Environment, Earth & Ecosystem Sciences
- School of Engineering & Innovation
- School of Life, Health & Chemical Sciences
- School of Mathematics & Statistics
- School of Physical Sciences
- Knowledge Media Institute
- Deanery including teams supporting Curriculum, Research and Enterprise, Laboratory Infrastructure and Faculty Administration

“We aspire to be world leaders in inclusive, innovative and high impact STEM teaching and research, equipping learners, employers and society with the capabilities to meet tomorrow’s challenges”

The Faculty of STEM consists of 2500 staff including 1,800 Associate Lecturers. The Faculty delivers over 185 modules across undergraduate and postgraduate curriculum, supporting nearly 19,000 students (full time equivalents) which is 29% of the OU total.

The Faculty generates more research income (circa £17M) than any other Faculty in the University, supported by a comprehensive laboratory infrastructure.

We are proud of our distinctive values and capabilities underpinning our aspiration:

We are inclusive:
- We transform people’s lives, ensuring STEM education is openly accessible to many thousands of students from diverse backgrounds – our students express high satisfaction with their study experience.
- We engage the public in exciting citizen science and engineering, including through free open educational resources, multi-platform broadcasting, outreach to inspire the next generation and with programmes to encourage more women into STEM.

We are highly innovative:
- We are at the forefront of innovative developments in teaching practical science and engineering at a distance, through simulated and remote access laboratories and practical experimentation.
- Our high quality teaching and curriculum are informed by world-leading research, strong links with professional bodies and communities of practitioners, as well as by scholarship focused on continuously improving our STEM pedagogy.

We deliver significant social and economic impact:
- We provide STEM higher education at a scale and reach unsurpassed in the UK, with a sizeable international reach and further growth potential.
- We inject transferable STEM skills and knowledge direct into the workplace for immediate employee and employer benefit, as students combine study while working.
• The employability value of our courses is underpinned by accreditation from leading STEM Professional Bodies and Learned Societies, as well as partnerships and sponsorship with leading employers.
• Our high quality, applied and academically relevant teaching and research addresses real-world issues, delivering impact for industry and society, including addressing pressing STEM skill-shortages across the UK.