

Job Description: Assistant Professor (Air Quality)

Post title and post number	Assistant Professor (Air Quality)
College/Budget Centre	
School/Department	GEES
Full time/Part time	FT
Duration of the Post	Open-ended
Salary	
Additional information	
Terms and Conditions	Academic Teaching Staff
Closing Date	
Grade	8

Background

We are seeking to appoint an Assistant Professor in Air Quality in the School of Geography, Earth & Environmental Sciences (GEES) at the University of Birmingham. The post will reinforce existing research and teaching activity in the world-renowned Environmental Health Sciences (EHS) research theme. We welcome applications from candidates with research activity and interests within the broad remit of air quality to complement and expand our pre-existing strengths. Potential areas of research include, but are not limited to, earth observation, atmospheric modelling, health impacts, and air quality data science and AI.

The role is advertised as a three-legged contract with excellence in research, education and administration all expected, with candidates able to demonstrate a commitment to teaching and school service. Synergies with the other research themes within GEES will also be considered, including links to urban resilience and health inequalities, and research on the United Nations Sustainable Development Goals (SDGs).

Evidence of a developing track record in publishing work of high academic quality and impact is essential, as is an emerging portfolio (or clear potential) of external research funding. Applicants must have a commitment to delivering excellent and inclusive teaching and learning at all levels (i.e. undergraduate, postgraduate, and supervising postgraduate taught and doctoral projects in their area of expertise), and to communicating the relevance and impact of their research to stakeholders.

Alongside research, the post holder will support delivery of the Environmental Sciences and Physical Geography undergraduate and postgraduate teaching programmes. Successful candidates will be involved in administrative tasks appropriate to their appointment grade, to support delivery of research, teaching and international impact within GEES.

There are significant opportunities for interdisciplinary research activities within the School and across campus, including with the Institute for Advanced Studies, Birmingham Institute for Forest Research (BIFoR), the Birmingham Institute for Sustainability and Climate Action (BISCA), Centre for Urban Wellbeing (CUWB) and the Institute for Data and AI (IDAI). There is an expectation that appointees will engage internationally, building on the strong track record already established in the School through a Global Engagement strategy that has partnerships in e.g. Africa, Brazil, China, India and North America.

Academic Development Programme - new Assistant Professors will undertake a 5-year development programme, at the end of which they are expected to be promoted to Associate Professor. The programme consists of a variety of development opportunities and the time to reflect and develop.

Summary of Role

You will contribute to a range of research, teaching and administration activities. In addition, you will be expected to demonstrate academic citizenship, developing and maintaining generous, mutually respectful and supportive working relationships with all staff and students, and ensuring the way you carry out your role impacts positively on how others can carry out theirs.

Research will involve initiating, conducting and disseminating original scholarship. Your research will have measurable outcomes reflecting your growing national (and emergent international) reputation. Teaching will include (a) contributing to the undergraduate and Master's teaching programmes (for example BSc Environmental Science and MSc Air Pollution Management and Control) and (b) enhancement of the student experience or employability that is of manifest benefit to the School and its students University.

Management and administration are likely to involve contributions at School level, and/or making an important contribution to some managerial/leadership activities (e.g. working groups) within the University. This may include developing and making substantial contributions to knowledge transfer, enterprise, business engagement, public engagement, widening participation, schools outreach, or similar activities at School level or further within the University.

Main Duties / Responsibilities

Education

Using a variety of methods in teaching and advising individuals and groups of undergraduates, postgraduates, or CPD students, including (as appropriate):

- teaching and examining courses at a range of levels;
- planning and reviewing your own teaching approaches and encouraging others to do the same;
- designing contemporary, inclusive, engaging and academically challenging curriculum content;
- working collaboratively with colleagues to design and deliver teaching, learning and assessment;
- using digital resources/environments effectively to support learning and assessment;
- developing programme proposals and making substantial contributions to the design of teaching programmes more widely;
- where appropriate, undertaking and developing the full range of responsibilities in relation to supervision, marking and examining;
- developing and advising others on learning and teaching tasks and methods;
- developing and making substantial contributions to knowledge transfer, enterprise, business engagement, public engagement activities or similar on own specialism that enhances the student experience or employability and which benefits the College and University;
- devising and supervising projects, student dissertations and practical work.

Research

Planning and carrying out research, including (as appropriate):

- planning and publishing high quality research, including winning financial support;
- project managing research activities, and/or supervising other research staff;
- presenting findings in publications and conference proceedings;
- effectively supervising and mentoring PhD students or early Career Researchers;
- providing expert advice to staff and students within the discipline;

- participating in research-related enabling activities such as adding value to a cross disciplinary network;
- applying knowledge in a way which develops new intellectual understanding; developing and making substantial contributions to knowledge transfer, and enterprise (including business engagement, public engagement) and similar activity that is of benefit to the College and the University, including ensuring that the impact of your activities is realised fully and the impact is documented.

Management/Administration

Contributing to Departmental/School administration, including:

- contributing to the administration/management of research and/or teaching across the Department/School;
- leading and managing a team to devise and implement a new and/or revised process (e.g. new programme or a recruitment drive);
- advising on personal development of colleagues and students;
- making a major contribution to some administrative activities within the University (e.g. appeals panels, working groups);
- managing enterprise, business development, and public engagement activities;
- developing and making substantial contributions to knowledge transfer, enterprise, business engagement, public engagement, widening participation, schools outreach.
- actively manages equality, diversity and inclusion through monitoring and evaluation and actively challenging unacceptable behaviour.

Citizenship

Contributing to an inclusive working environment:

- demonstrating a willingness to be involved in a variety of activities supporting University life (e.g., participation in graduation, Departmental/School committees);
- demonstrating support for colleagues, such as sharing resources, providing advice;
- willingness to volunteer for one-off duties (such as supporting School, Institute, and Departmental projects);
- positively engaging in School strategic initiatives;
- proactive support and involvement in activities specifically contributing to a positive and inclusive community spirit across the School/College/University.

Person Specification

- Normally, a higher degree relevant to the research/teaching area (usually PhD) or equivalent qualifications
- Extensive research/teaching experience and scholarship within subject specialism
- Proven ability to devise, advise on and manage learning/research
- Skills in managing, motivating and mentoring others successfully at all levels

Teaching

- Ability to design, deliver, assess and revise teaching programmes
- Extensive experience and demonstrated success in developing appropriate approaches to learning and teaching, and advising colleagues
- Experience and success in knowledge transfer, enterprise and similar activity that enhances the student experience or employability

Research

- Experience and achievement reflected in a growing reputation as a researcher within the subject specialism air quality
- Extensive experience and demonstrated success in planning, undertaking and project managing research to deliver high quality results
- Extensive experience of applying and/or developing and devising successful models, techniques and methods
- Experience and achievement in knowledge transfer, enterprise and similar activity

Management Administration

- Ability to contribute to School/Departmental management processes
- Ability to assess and organise resources effectively
- Understanding of and ability to contribute to broader management/administration processes
- Experience of championing Equality, Diversity and Inclusion in own work area
- Ability to monitor and evaluate the extent to which equality and diversity legislation, policies, procedures are applied
- Ability to identify issues with the potential to impact on protected groups and take appropriate action