

JOB DESCRIPTION

Job Title:	Fellow in Bioinformatics (Academic Pathway – Research)	Grade:	AC2
Department:	Natural Resources Institute, Agriculture, Health and Environment Department	Date of Job Evaluation:	
Role reports to:	Head of Department, AHED		
Direct Reports			
Indirect Reports:			
Other Key contacts:	Director/Deputy Director of NRI, FaNSI Partnerships Director, NRI colleagues, Fundors, Research Partners, Sustainable Agricultural Intensification Programme, Ecosystem Services Research Group		
This role profile is non-contractual and provided for guidance. It will be updated and amended from time to time in accordance with the changing needs of the University and the requirements of the job.			

PURPOSE OF ROLE:

The Natural Resources Institute (NRI) of the University of Greenwich is currently expanding its interdisciplinary research excellence to address food and nutrition security, especially in Africa. This expansion in capacity is funded by Research England as part of their highly competitive “Expanding Excellence in England” scheme, where NRI has received funding to appoint 22 members of staff, recruit 20 PhD students and enhance our research facilities.

Using a food systems approach, NRI and partners will focus on climate change, sustainable agricultural intensification, food loss and waste, and improved nutrition. More information on NRI’s Food and Nutrition Security Initiative can be found at www.nri.org/FaNSI.

Candidates for this post will enhance the research capacity at NRI in bioinformatics and will support the work of existing projects within NRI on a daily basis, working in collaboration with existing researchers and PhD students at NRI. The selected candidate will assist in the design and execution of sequencing experiments to address specific research questions across a diversity of research topics.

The successful candidate must have proven experience of analysing large next generation sequence datasets, and the necessary skill set to validate data outputs using different software. Gene mining and analysis of transcriptome data such as those generated from RNA-Seq will also be desirable.

Excellent scientific writing skills are an essential requirement of the post, as is the ability and willingness to undertake short term national and international travel. In-depth biological understanding of entomology, plant pathology and/or plant physiology will be considered an advantage.

This position offers the opportunity to work in a large global organization and to play a major role in expanding the bioinformatics facilities at the Natural Resources Institute. A proven record of successful collaboration and co-operation in previous research/projects is essential to this key role.



The purpose of this role is **mainly** to conduct high quality research, but also contribute to teaching on undergraduate and postgraduate programmes in particular the Masters' in Agriculture for Sustainable Development and Global Environmental Change. The person appointed will be expected to:

- Engage in research and professional practice across the subject area and contribute to the research profile of the Natural Resources Institute. The role is expected to contribute to the Sustainable Agricultural Intensification Programme of the Institute (<https://www.nri.org/development-programmes/sustainable-agricultural-intensification/overview>)
- Contribute to the agroecological research projects carried out in the department, develop future projects in this area, and participate in the delivery of existing teaching and course provision (teaching is foreseen up to 10% of this role).

Note: The University of Greenwich is committed to promoting equality and diversity, and to providing an inclusive and supportive environment in which all individuals have the opportunity to contribute to their full potential. The University welcomes applications from candidates from diverse backgrounds.

KEY ACCOUNTABILITIES:

Team Specific:

- Contribute to subject or professional research leading to the publication and/or dissemination of original work of international excellence quality
- Contribute to the research profile of the Natural Resources Institute and its submissions to the Research Excellence Framework (REF)
- Maintain a portfolio of research and enterprise projects or contribute to teaching to achieve full personal commissioning. FaNSI provides support to commissioning until 2022.
- Contribute to the delivery of high quality, innovative and effective teaching and new teaching initiatives, including inclusive approaches to setting and marking assessment
- To contribute to the development of funding bids which contribute to the acquisition of internal and external resources to fund research, enterprise or teaching projects
- Contribute to the integration of enterprise work/research and scholarship and activities into teaching or professional training materials.
- Contribution to the continuous improvement of the student experience or Lead courses/modules effectively including adopting a responsive approach to students
- Effective cross working with Professional Services to support students when needed
- Contribute to relationship management external public/cultural sectors/business, industry/professional bodies in relation to teaching, research or enterprise
- Maintain effective, high quality and productive working relationships with professional bodies and employers as appropriate
- Supervision of undergraduate and postgraduate students
- Contribute to the general academic administrative work of the Department and Faculty

Generic:

- Assist in achieving the KPIs of the Natural Resources Institute
- Contribute to departmental plans, activities and efficient working practices
- Participate in visit to schools, local community groups, public engagements and related activity
- Demonstrate a commitment to equality, diversity and inclusion through teaching practice and / or engagement with University initiatives



- Contribute to peer review and departmentally based teaching development activities
- Promote your work and represent your discipline and the work of the University internally and externally, and take a proactive approach to ethical, good practice

Managing Self

- Keep abreast of developments within the field and seek continuous improvement of own professional practice
- Develop expertise in inquiry/research-informed teaching with an increasing degree of autonomy
- Actively participate in established professional development framework activities
- Behave in a manner which reflects the University values and creates a positive environment for work and study
- Maintain a high standard of student engagement and satisfaction
- Seek to maximise the learning outcomes of students

Core Requirements

- Adhere to and promote the University's policies on Equality and Diversity and Information Security. Ensure compliance with Health and Safety regulations and Data Protection legislation.
- Support and promote the University's Sustainability policies, including the Carbon Management Plan, and carry out duties in a resource efficient way, recognising the shared responsibility of minimising the university's negative environmental impacts wherever possible.

Additional Requirements:

Any other duties commensurate with the post and grade as agreed with the Head of Department and the Director of the Natural Resources Institute.

KEY PERFORMANCE INDICATORS:

Performance Indicators will be established in consultation with the Head of Department as part of the post-holder's annual Appraisal and Professional Development Review

KEY RELATIONSHIPS (Internal & External):

Head of Department

NRI Director

Research Group/Programme Leaders,

NRI academic staff

Project Controllers

Administrative colleagues in NRI

Academic and administrative staff in other University Departments

External collaborators on research and enterprise projects.



PERSON SPECIFICATION

Essential

Experience

- Proven track record of publishing research outputs
- Ability to work independently, leading specific components of projects.

Skills

- Practical experience of writing and running Python and Linux scripts
- Practical experience of a range of bioinformatics software packages and database resources.
- Specialist knowledge in some of the following areas: genome and transcriptome assembly [particularly in insects or pathogens], Data analysis – experience with QC, normalization, assembly, clustering, classification, annotation and downstream analysis, familiarity and use of NGS tools and R/Bioconductor packages. Sequence bioinformatics – alignment tools, annotation of sequences/regions with genomic features, SNP identification, genome browsers/visualization.
- Well-developed organisational skills
- Excellent written and oral communication skills
- Commitment to the promotion of high standards and excellence
- Ability to think strategically and conceptually
- Ability to work effectively and deliver under pressure
- Proven experience of scientific writing skills by lead authorship on scientific papers.

Desirable

Experience

- Working in a molecular laboratory
- Experience of insect-related experimental research
- Working knowledge of quality assurance/enhancement and academic standards
- Willingness to undertake regular short-term international travel to developing countries

Teaching

- Teaching at undergraduate and/or postgraduate level in the field of bioinformatics
- Conducting high quality, innovative and effective teaching on postgraduate and undergraduate programmes
- Postgraduate teaching /supervision
- Student care and pastoral provision

Skills

n/a

Qualifications



Qualifications

- PhD in a life science discipline with significant experience in bioinformatics, or PhD in Bioinformatics with experience of working in the life sciences.
- An appropriate level of fellowship of the Higher Education Academy or willingness to obtain.

Personal attributes

- We are looking for people who can help us deliver the values of the University of Greenwich: Excellence, Determination, Inclusivity, Ambition and Creativity

- Postgraduate teaching qualification