

CANDIDATE BRIEF

Lecturer in Mathematical Data Science (Teaching and Scholarship), Faculty of Engineering and Physical Sciences



Salary: Grade 8 (£45,585 – £54,395 p.a.) Reference: EPSMA1106 Closing date: Wednesday 01 May 2024

We are open to discussing flexible working arrangements

Lecturer in Mathematical Data Science (Teaching and Scholarship), School of Mathematics.

Are you passionate about impactful, collaborative, and data-driven applications of Mathematics? Do you have relevant experience in this interdisciplinary field at the intersection of mathematical data science, software engineering, science communication, design, business analytics, digital humanities, and social sciences? Do you want to help shape the education of a new generation of Data Science students that can operate in strategic, challenge-driven contexts and become the leaders of the future?

We are seeking a new permanent member of academic staff to join our growing Data Science team. Our programme portfolio in Data Science currently encompasses a very established MSc in Data Science & Analytics, as well as a new online MSc in Data Science and a new BSc in Data Science. You will support the delivery of this innovative new BSc programme and will add to the interdisciplinary strength of the School of Mathematics, making connections with neighbouring disciplines within the data science ecosystem.

The School has very active Departments in Applied Mathematics, Pure Mathematics, Statistics and Mathematics Education, with a range of interdisciplinary applications such as in mathematical biology, data analytics of multiple omics data, optimisation for e.g. flood mitigation, industrial applications, and applied non-linear dynamics. Data Science activities occur across the University such as in health & medicine, sustainability, technology, biodiversity (such as the <u>Global Biosphere Sensing Network</u>), digital humanities, and urban data science; in institutes such as the Leeds Institute for Data Analytics (LIDA), the <u>Priestley Centre for Climate Futures</u>, and the <u>Institute for Transport Studies</u>; as well as in collaboration with global partners such as the <u>Leeds Africa Hub for Data Science & Artificial Intelligence</u>.

You will enjoy working in multidisciplinary contexts, connecting communities, and collaborating with diverse partners in order to create authentic learning opportunities and assessments for students. Your practices will be informed by industry and academia as well as the dual aspects of technical and behavioural sciences that underpin data science. You will bring and embrace innovative and evidence-informed approaches to teaching and learning that will deliver inclusive, active, and digitally



enhanced experiences to all our students. As a Teaching & Scholarship Lecturer, your work will take place in the context of the University's transformative change programme <u>Curriculum Redefined</u>, and support innovation in teaching, learning & assessment practice, learning design, and the Scholarship of Teaching & Learning (SoTL). In joining the University of Leeds, you will become part of an internationally focused University that provides all our students with an outstanding education and experience, and at the same time undertakes cutting-edge research of high quality, impact, and significance.

The Faculty of Engineering & Physical Sciences holds an Athena SWAN Silver Award in recognition of our success in recruiting, retaining, and developing/promoting women in Science, Engineering and Technology (SET). The School of Mathematics also offers a number of family-friendly employment practices that are designed to enable a good work-life balance and to be responsive to support personal circumstances. In many roles we offer flexible working and part-time working, and we have a range of services to help support staff through work and personal challenges.

What does the role entail?

As a Lecturer (T&S), your main duties will include:

Teaching and learning:

- Communicating effectively in writing and verbally with students, academics and external audiences; interacting with a diverse range of students in ways that will enhance the student experience, with a high level of interpersonal and communication skills;
- Building collaborative relationships with interdisciplinary partners in the University such as academic and professional services staff, in the local community and with industry;
- Delivering education at different levels on undergraduate and postgraduate taught courses and taking part in other teaching activity, including promoting and developing student competencies related to enquiry and research, core to a research-based education;
- Establishing and maintaining expertise at the forefront of your field/ disciplinary area and incorporating this into your teaching;
- Forming part of a University-wide cohort community, taking part in regular events, sharing good practice, and working collaboratively with project teams across the institution;



- Contributing to the planning, design, development, delivery and review of learning units (modules and programmes) within relevant subject areas;
- Playing an active part in the development and adoption of teaching and learning practice in the School;
- Contributing disciplinary pedagogic expertise and experience to areas of the curriculum, facilitating and encouraging colleagues to think creatively and innovatively about development of teaching and learning practice;
- Taking a leading role in the development of teaching and learning practice in the school, with an emphasis on inclusion, active learning, project-based learning, and technology-enhanced learning.

Curriculum review and redesign:

- Implementing new interdisciplinary data science modules using a collaborative approach, innovative pedagogical practice and a people-centred design mindset for prototyping, evaluation and iterative enhancement;
- Contributing to Equality, Diversity and Inclusion initiatives that create an inclusive learning environment within the school, ensuring we attract and retain the best students from all backgrounds, from across the world, and support them to flourish.

Education research and scholarly activity:

- Carrying out scholarship of teaching and learning, inform ongoing innovative curriculum design and delivery, and contribute to the thinking and understanding of the sector (e.g., through scholarly publications and posts, discussions, conference participation etc.);
- Contributing to the production of high-quality and innovative learning materials and resources to support learning and teaching in the school and discipline(s);
- Contributing to the development of innovative approaches to teaching and learning;
- Conducting other scholarship activities such as: investigating barriers to attainment in higher education; creating open education resources, contributing to textbooks; and other priorities agreed with the Head of School;



• Contributing to pedagogic research and/or the development of teaching policy and practice, disseminating findings/developments across the wider academic or professional community.

General:

- Undertaking research-led teaching at different levels, including assessment and examinations and contributing towards module design, review and quality assurance mechanisms;
- Providing support and guidance to students, providing timely feedback, acting as a personal tutor, resolving issues and/or referring to specialist parties, where appropriate;
- Contributing effectively to the administrative processes and committee structures of the School/Faculty including taking on leadership roles and managing initiatives which facilitate School, Faculty or University performance or business.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Lecturer (T&S), you will have:

Essential

- A PhD in a relevant discipline or equivalent experience, e.g., in industry;
- Experience in interdisciplinary, collaborative and computational applications of Mathematics, in particular in adjacent disciplines relevant to data science;
- Experience in the design of teaching and embedding of concepts across programmes;
- Evidence of contributing to policy and practice around teaching and training within a school, team or equivalent, including experience of reviewing and enhancing units or programmes;
- Experience of effectively using digitally enabled approaches to learning in a Higher Education or related environment;
- Evidence of working to promote equality, diversity, and inclusion in Student Education, and supporting the needs of a diverse student population.



Desirable

- Experience of creating online teaching materials, portfolio assessments or automated assessments, use of reflective practice or external reference frameworks;
- Experience of working with colleagues across interdisciplinary boundaries, undergraduate lab or workshop teaching, student support and supporting admissions;
- Experience of conducting outreach activities and/or delivering student projects with industrial partners;
- Evidence of significant contributions to the scholarship of teaching and learning, with a record of successfully obtaining resources to deliver a significant educational activity;
- An understanding of policy and strategic issues relating to teaching and learning in Higher Education.

How to apply

You can apply for this role online; more guidance can be found on our <u>How to Apply</u> information page. Applications should be submitted by **23.59** (UK time) on the advertised <u>closing date</u>.

Contact information

To explore the post further or for any queries you may have, please contact:

Dr Pierre-Philippe Dechant, Programme Director BSc Data Science Email: <u>P.P.Dechant@leeds.ac.uk</u>

Dr Philip Walker, Director of Student Education Email: <u>P.Walker@leeds.ac.uk</u>



Additional information

Faculty and School Information

Further information is available on the research and teaching activities of the <u>Faculty</u> of <u>Engineering & Physical Sciences</u> and the <u>School of Mathematics</u>.

A diverse workforce

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Engineering and Physical Sciences we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian and ethnically diverse people; people who identify as LGBT+; and people with disabilities. Candidates will always be selected based on merit and ability.

The Faculty of Engineering and Physical Sciences are proud to have been awarded the Athena SWAN <u>Silver</u> Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our <u>equality and inclusion</u> <u>webpage</u> provides more information.

Working at Leeds

We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our <u>Working at Leeds</u> information page.

Information for disabled candidates

Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found on our <u>Accessibility</u> information page or by getting in touch with us at <u>hr@leeds.ac.uk</u>



Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our <u>Criminal Records</u> information page.

