Programme Specification: Post Graduate Taught

For students starting in Academic Year 2024/25

1. Course Summary

Names of programme and award title(s)	MSc Geoscience Research
Award type	Taught Masters
Mode of study	Full-time Part-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 7
Normal length of the programme	1 year full-time or 2 years part-time
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	Not applicable
Regulator	Office for Students (OfS)
Tuition Fees	**UK students:** Full-time fee for 2024/25 is £11,000 Part-time fee for 2024/25 is £6,000 per year* **International students:** Full-time fee for 2024/25 is £20,700

How this information might change: *Please read the important information at http://www.keele.ac.uk/student-agreement/. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.*

* *We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

2. Overview of the Programme

The MSc Geoscience Research at Keele University provides the opportunity for students to acquire postgraduate-level generic and subject-specific knowledge, research, and technical skills across a broad range of disciplines within the Geosciences with a focus on data science skills and sustainability. It provides a strong educational background for a career in industry, academia or the public sector. Students are supported in their development of these skills through taught group sessions, traineeships and applied projects, and one-to-one discussions with their Dissertation project supervisors.

The School of Geography, Geology and the Environment at Keele conducts internationally recognised fundamental and applied research in many areas in the Geosciences and related disciplines, ranging from applied and environmental geophysics to environmental chemistry/pollution, igneous petrology, palaeoceanography, Quaternary environments, palaeontology, energy, sedimentology, structural geology, geoforensics, and volcanology. Students on the MSc Geoscience Research programme will benefit from our expertise in these

areas and our collaborative research links that provide the foundation for collaboration opportunities with institutions around the world, along with opportunities in industry, the public sector and the third sector based primarily in the UK. International students will be able to take advanced academic English for postgraduate students, with one-to-one support sessions open to non-native English speakers.

In addition to the development of discipline-specific skills, students will be supported in enhancing key professional and employability skills through developing critical thinking, innovation, reflective writing, autonomous learning and written and oral presentation skills: all vital skills for future employment, lifelong learning and continued professional development irrespective of the student's chosen career path.

The focus of the MSc Geoscience Research is in building applied skills and there is substantial 'hands on' training makes this a distinctive course in the UK Higher Education Sector.

3. Aims of the programme

The broad aims of the programme are to enable you to:

- acquire postgraduate-level generic and subject-specific knowledge and research skills across a broad range of disciplines within the Geosciences with a focus on sustainability and data science skills.
- develop a strong educational background for a career in industry, academia or the public sector.

4. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to:

- demonstrate Geoscience (and related disciplines) knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, debates in sustainability the forefront of the chosen research area in Geosciences;
- critically evaluate current research and advanced scholarship in their area of Geoscience;
- demonstrate originality in the application of knowledge, and how established techniques of research and enquiry are used to create and interpret knowledge in Geoscience;

Subject specific skills

Successful students will be able to:

- evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses;
- demonstrate a high level of scientific skills and knowledge, and transferable skills, in a UK-based or international workplace setting;
- deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to both specialist and non-specialist audiences;

Key or transferable skills (including employability skills)

Successful students will be able to:

- demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level;
- demonstrate the qualities and transferable skills necessary for employment requiring:
    - the exercise of initiative and personal responsibility
    - decision-making in complex and unpredictable situations
    - the independent learning ability required for continuing professional development.

The Keele Graduate Attributes

The Keele Graduate Attributes are the qualities (skills, values and mindsets) which you will have the opportunity to develop during your time at Keele through both the formal curriculum and also through co- and extra-

curricular activities (e.g., work experience, and engagement with the wider University community such as acting as ambassadors, volunteering, peer mentoring, student representation, membership and leadership of clubs and societies). Our Graduate Attributes consist of four themes: **academic expertise, professional skills, personal effectiveness, and social and ethical awareness.** You will have opportunities to engage actively with the range of attributes throughout your time at Keele: through your academic studies, through self-assessing your own strengths, weaknesses, and development needs, and by setting personal development goals. You will have opportunities to discuss your progress in developing graduate attributes with, for example, Academic Mentors, to prepare for your future career and lives beyond Keele.

5. How is the programme taught?

The programme is delivered through a variety of learning and teaching activities designed to develop research and professional skills including lectures, tutorials, workshops, seminars, practical/laboratory classes, problem-based learning, directed reading and independent study and project work, individual presentations and linked discussion, in addition to one-on-one meetings/discussions with individual research supervisors. Beyond the taught components of the course, there is also a strong focus on student-led learning and research with support from teaching staff to help develop independent research skills and technical skills. All students are expected to engage in independent study for the duration of the programme.

Modules will focus on generic research skills such as academic writing, critical paper evaluations, reviewing literature, data analysis and presentation skills, oral presentation skills and research design and management, alongside specific skills (particularly focussing on methodology) in their chosen area of Geoscience. This should adequately prepare the student for their dissertation research project.

The programme provides the opportunity to:

- Develop a structured approach to the design and management of projects including consideration of ethics, grant application and project planning through a series of lectures and small group activities and discussions.
- Share best practice and develop communication and group collaboration skills through a series of student-led talks.
- Acquire advanced laboratory competencies and analytical skills appropriate to Geoscience which will be acquired through working in a research environment at Keele.
- Consider the application of new or existing knowledge to novel, up-to-date problems within the chosen discipline or in new innovative contexts through seminars and group activities.
- Develop scientific critique, writing and presentational skills appropriate for a career in research in academia or industry.

The dissertation research project will allow students to apply their generic and specific skills acquired earlier in the programme and develop advanced research, practical and analytical skills, and provide an opportunity to work alongside experts either at Keele University or with a external partner organisation. This provides excellent research training within the specialist area and allows a range of employability skills to be developed.

The Keele Learning Environment (KLE) will provide a virtual resource to support learning and teaching activities, enhance student development and provide a forum for the exchange of ideas and discussion of issues that may arise during programme delivery.

6. Teaching Staff

The teaching staff comprise a number of expert academics within Geography, Geology and the Environment (GGE) at Keele University with active research interests in a range of scientific disciplines. The teaching and research profiles of the staff that currently deliver and support the MSc Geoscience Research programme can be found at: https://www.keele.ac.uk/gge/ourpeople/.

The GGE academic staff involved in the MSc Geoscience Research have expertise and interests in all major areas of the Geosciences as well as vocational disciplines such as computing and consultancy. In addition to the members of the programme team who deliver and coordinate individual modules, other GGE staff support the MSc Geoscience Research through research project supervision at Keele and professional and technical support, along with the provision of international and industry collaboration opportunities for students.

All academic staff are active researchers and many have a distinguished track record in publications, the generation of research grant income, industrial collaboration and journal editorship. Several staff have particular interests in the development of geoscience education and/or have played an active role in the promotion of UK Geoscience activities (e.g. via membership of the Geological Society of London committees). Additionally, many staff contribute to widening participation and science outreach activities, and have demonstrated innovation and good practice in teaching and learning to take account of the diverse needs and disabilities of all students.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is

taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

7. What is the structure of the programme?

The MSc Geoscience Research programme runs full-time over one full year (with a September or January start) with three semesters; Semester 1 starting in September/January, Semester 2 starting in January/May and Semester 3 starting in June/September. Alternatively, students can take the programme part-time with a January or September start, completing the compulsory *ESC-40087 Digital Geoscience and Spatial Analysis* in Semester 2 and continuing work on other modules and the research project module over the following years.

The programme comprises five compulsory modules designed to develop research skills: Project Management and Business Skills (Sem 1 or Sem 3), Research Design (Sem 2), Digital Geoscience and Spatial Analysis (Sem 2), Sustainable Extraction (Sem 1 or Sem 3) and the Dissertation module (Sem 2-3). In addition to these 135 credits of compulsory modules, students will take 45 credits of optional modules in the wider sustainability field, including Smart Grid, Green IT, Clean and Green Technologies, many of which have Geoscience themes.

The structure of the programme is designed to develop generic research skills, e.g. critical reading, thinking and reflective writing, scientific writing, scientific communication (written and oral) and project design, along with subject-specific research skills such as laboratory and/or field methods and data analysis and interpretation.

The full-time MSc Geoscience Research programme is a 180 credit module programme delivered over three semesters. The overall structure is similar for all students, with 135 credits split between compulsory modules across semesters 1, 2 and 3. The remaining 45 credits may be chosen from the available optional modules. Students who are non-native English speakers may be required to take additional language support - this can be completed as an additional 15 credits for 195 credits in the degree.

All students should discuss option choices with their programme director, Academic Mentor and project supervisor.

Year	Compulsory	Optional	
		Min	Max
Level 7	135	45	45

Module Lists

Level 7

Compulsory modules	Module Code	Credits	Period
Sustainable Extraction	ESC-40085	15	Semester 1
Project Management and Business Skills	ESC-40091	15	Semester 1
Digital Geoscience and Spatial Analysis	ESC-40087	30	Semester 2
Research Design	ESC-40093	15	Semester 2
Dissertation	ESC-40089	60	Semester 2-3

Optional modules	Module Code	Credits	Period
System Design & Programming	CSC-40044	15	Semester 1
Data Analytics and Databases	CSC-40054	15	Semester 1
Academic English for Postgraduate Science Students	ENL-40005	15	Semester 1
Green IT	ESC-40047	15	Semester 1
Reservoir Geology and Geophysics (Masters)	ESC-40073	15	Semester 1
Clean and Green Technologies	ESC-40097	30	Semester 1
Collaborative Project	ESC-40101	15	Semester 1
Advanced Traineeships in Geography, Geoscience and Sustainability	GEG-40030	15	Semester 1
International Environmental Law	LAW-40043	15	Semester 1
Advanced Programming in Python	CSC-40068	15	Semester 2
Academic English for Postgraduate Science Students	ENL-40005	15	Semester 2
Climate Change Science	ESC-40060	15	Semester 2
Collaborative Project	ESC-40101	15	Semester 2
Advanced GIS and Remote Sensing	ESC-40109	15	Semester 2
Advanced Traineeships in Geography, Geoscience and Sustainability	GEG-40030	15	Semester 2

Level 7 Module Rules

ESC-40101 Collaborative Project and GEG-40030 Advanced Traineeships in Geography, Geoscience and Sustainability

Students may enrol for only one of these two options.

International students will have a diagnostic language assessment by the Language Centre. Where a student is evaluated by the Language Centre as needing Academic English support via module ENL-40001: Academic English for PG Students, the student can either elect to take ENL-40001 as a module option contributing to the overall course credits (i.e. 15 credits of 180 credits)* ***or* *take option module to contribute to their overall course credits and take ENL-40001 as an additional module (so 195 credits are taken overall).*

The programme may vary depending on whether the student is UK or international (see above), and whether the student is full time or part-time. The structures are as follows:

Course structures

Full-time September Start

Sem 1 - Autumn	Project Management and Business Skills (15 credits)
	Sustainable Extraction (15 credits)
	Optional module (30 credits) OR 2 Optional Modules (15 credits each)
Sem 1/2 - Autumn/Spring	Optional module (15 credits)
	Digital Geoscience and Spatial Analysis (30 credits)
	Research Design (15 credits)
Sem 2/3 - Spring/Summer	Dissertation (60 credits)

Full-time January Start

Sem 2 - Spring	Digital Geoscience and Spatial Analysis (30 credits)
	Research Design (15 credits)
	Optional module (15 credits)
Sem 2/2 - Spring/Autumn	Dissertation (60 credits)
Sem 3/2 - Summer/Autumn	Sustainable Extraction (15 credits)
	Project Management and Business Skills (15 credits)
	Optional modules (1 x 30 or 2 x 15 credits)

Part-time September Start

Year 1	
Sem 1/2 - Autumn/Spring	Project Management and Business Skills (15 credits)
	Sustainable Extraction (15 credits)
Sem 2/3 - Spring/Summer	Digital Geoscience and Spatial Analysis (30 credits)
Sem 3/3 - Summer/Autumn	start Dissertation (60 credits)
Year 2	
Sem 2/1 - Autumn-Spring	Optional Modules (2 x 15 credits)
Sem 2/2 - Spring/Summer	Research Design (15 credits)
	Optional Module (15 credits)
Sem 2/3 Summer/Autumn	complete Dissertation (60 credits)

Part-time January Start

Year 1	
Sem 2/3 - Spring/Summer	Digital Geoscience and Spatial Analysis (30 credits)
Sem 3/3 - Summer/Autumn	Start Dissertation (60 credits)
Sem 2/1 - Autumn/Spring	Sustainable Extraction (15 credits)
	Optional module (15 credits)
Year 2	
Sem 1/2 Spring/Summer	Research Design (15 credits)
	Optional module (15 credits)
Sem 2/2 - Summer/Autumn	Complete Dissertation (60 credits)
Sem 3/2 Autumn/Spring	Project Management & Business Skills (15 credits)
	Optional Module (15 credits)

Notes on Optional modules:

Academic English for Postgraduate Students - ENL-40005 (15 credits)

An advanced English module for international students who are undertaking postgraduate study at Keele University and have been evaluated as needing academic English support by the Language Learning Unit. The module develops the specific vocabulary, writing, critical reading, oral communication and study skills needed for success with academic assignments at postgraduate level. A student's placement onto the correct level of Academic English is based on a diagnostic language assessment on arrival. This module can be included in the degree as an additional 15 credits.

Learning Outcomes

The table below sets out what students learn in the programme and the modules in which that learning takes place. Details of how learning outcomes are assessed through these modules can be found in module specifications.

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Demonstrate systemic project management skills incl. consideration of ethics, applications for funding and data management	Project Management and Business Skills - ESC-40091 Dissertation - ESC-40089 Collaborative Project - ESC-40101 ESC-40091 ESC-40089 ESC-40101
Develop a critical awareness of current issues and important insights appropriate to the research discipline	Digital Geoscience and Spatial Analysis - ESC-40087 Research Design - ESC-40093 Clean and Green Technologies - ESC-40097 Sustainable Extraction - ESC-40085 Reservoir Geology and Geophysics (Masters) - ESC-40073 Dissertation - ESC-40089 Climate Change Science - ESC-40060 ESC-40085 ESC-40087 ESC-40089 ESC-40093 ESC-40073 ESC-40097 ESC-40060 LAW-40043
Integrate complex knowledge into professional written communication	Collaborative Project - ESC-40101 Dissertation - ESC-40089 Project Management and Business Skills - ESC-40091 Sustainable Extraction - ESC-40085 Research Design - ESC-40093 Digital Geoscience and Spatial Analysis - ESC-40087 ESC-40085 ESC-40089 ESC-40091 ESC-40093 ESC-40087 ESC-40101
Critically evaluate current literature appropriate to research discipline	Dissertation - ESC-40089 Research Design - ESC-40093 Digital Geoscience and Spatial Analysis - ESC-40087 Sustainable Extraction - ESC-40085 Climate Change Science - ESC-40060 ESC-40093 ESC-40089 ESC-40060 ESC-40087 eSC-40085
Apply a comprehensive understanding of the analytical approach to new scientific problems	System Design & Programming - CSC-40044 Data Analytics and Databases - CSC-40054 Project Management and Business Skills - ESC-40091 Collaborative Project - ESC-40101 Digital Geoscience and Spatial Analysis - ESC-40087 Research Design - ESC-40093 Dissertation - ESC-40089 ESC-40091 ESC-40089 ESC-40087 ESC-40101 ESC-40093 CSC-40044 CSC-40054

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Manage practical project work effectively	Dissertation - ESC-40089 Collaborative Project - ESC-40101 Advanced Programming in Python - CSC-40068 Project Management and Business Skills - ESC-40091 Sustainable Extraction - ESC-40085 System Design & Programming - CSC-40044 Advanced GIS and Remote Sensing - ESC-40109 ESC-40085 ESC-40091 ESC-40089 ESC-40056 ESC-40101 CSC-40044 CSC-40068 ESC-40061 ESC-40109
Use scientific research principles to develop research questions, or hypotheses	Collaborative Project - ESC-40101 Research Design - ESC-40093 Project Management and Business Skills - ESC-40091 Dissertation - ESC-40089 ESC-40089 ESC-40093 ESC-40091 ESC-40101
Use scientific research principles to select appropriate techniques of experimental design and analysis to research questions or hypotheses	Advanced GIS and Remote Sensing - ESC-40109 Dissertation - ESC-40089 Research Design - ESC-40093 Project Management and Business Skills - ESC-40091 Digital Geoscience and Spatial Analysis - ESC-40087 ESC-40091 ESC-40089 ESC-40087 ESC-40093 ESC-40109
Report the results of an empirical study, applying appropriate skills of presentation, interpretation and discussion of findings.	Project Management and Business Skills - ESC-40091 Collaborative Project - ESC-40101 Advanced Traineeships in Geography, Geoscience and Sustainability - GEG-40030 Dissertation - ESC-40089 ESC-40091 ESC-40089 ESC-40101 GEG-40030
Demonstrate independent laboratory, software, or field competencies	Collaborative Project - ESC-40101 Advanced Traineeships in Geography, Geoscience and Sustainability - GEG-40030 Digital Geoscience and Spatial Analysis - ESC-40087 Dissertation - ESC-40089 Advanced GIS and Remote Sensing - ESC-40109 ESC-40089 ESC-40101 GEG-40030 ESC-40087 ESC-40109
Evaluate complex scientific data	Reservoir Geology and Geophysics (Masters) - ESC-40073 Project Management and Business Skills - ESC-40091 Green IT - ESC-40047 Climate Change Science - ESC-40060 Digital Geoscience and Spatial Analysis - ESC-40087 Dissertation - ESC-40089 ESC-40091 ESC-40089 ESC-40047 ESC-40073 ESC-40056 ESC-40087 ESC-40060

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Demonstrate self-direction and dedication to independent learning	Advanced Traineeships in Geography, Geoscience and Sustainability - GEG-40030 Dissertation - ESC-40089 Collaborative Project - ESC-40101 Research Design - ESC-40093 Project Management and Business Skills - ESC-40091 ESC-40091 ESC-40093 ESC-40089 ESC-40101 GEG-40030
Demonstrate effective time management and work to deadlines	Collaborative Project - ESC-40101 Advanced Traineeships in Geography, Geoscience and Sustainability - GEG-40030 Digital Geoscience and Spatial Analysis - ESC-40087 Research Design - ESC-40093 Sustainable Extraction - ESC-40085 Dissertation - ESC-40089 Project Management and Business Skills - ESC-40091 ESC-40091 ESC-40093 ESC-40089 ESC-40101 GEG-40030. ESC-40085 ESC-40087
Demonstrate self-direction and independence in implementing and managing academic activities	Collaborative Project - ESC-40101 Project Management and Business Skills - ESC-40091 Advanced Traineeships in Geography, Geoscience and Sustainability - GEG-40030 Research Design - ESC-40093 Dissertation - ESC-40089 ESC-40091 ESC-40093 ESC-40089 ESC-40101 GEG-40030
Demonstrate innovation and originality in the understanding and application of new knowledge	Sustainable Extraction - ESC-40085 Project Management and Business Skills - ESC-40091 Dissertation - ESC-40089 Advanced Traineeships in Geography, Geoscience and Sustainability - GEG-40030 Collaborative Project - ESC-40101 Digital Geoscience and Spatial Analysis - ESC-40087 ESC-40091 ESC-40089 ESC-40101 GEG-40030 ESC-40085 ESC-40087

8. Final and intermediate awards

Master's Degree	180 credits	You will require at least 150 credits at Level 7
Postgraduate Diploma	120 credits	You will require at least 90 credits at Level 7
Postgraduate Certificate	60 credits	You will require at least 40 credits at Level 7

In order to obtain an MSc degree, students are required to obtain 180 credits, including a 60 credit dissertation/project. Since the aim of the course is to provide students with the necessary generic and subject specific skills to enable them to follow a career in research or industry, the dissertation/research project is the major route by which these skills will be obtained i.e. via 'on the job' training.

A Postgraduate Certificate (PGCert) will be awarded to students who have failed the Dissertation module but successfully complete 60 credits.

A Postgraduate Diploma (PGDip) is available to students who pass the Dissertation module (60 credits) and

successfully complete 120 credits.

9. How is the Programme Assessed?

This programme's varied assessment strategy ensures the student develops employability skills, and research and academic skills, appropriate for a career in research or industry. The assessment design is based on several key principles that promote independent learning, student autonomy and responsibility for personal learning, and the development of innovation and originality within Geosciences, Geography and Environmental Science.

Research Design offers taught sessions in key research skills such as research design, critical reading and thinking, data analysis and statistics, health and safety, risk assessment and ethics, scientific writing and presentation skills. Group work, clear communication and a holistic awareness of key challenges in the discipline are also key employability skills in both industry and academia: students will work together across a number of modules, including Digital Geoscience and Spatial Analysis.

Research Design requires students to critically appraise current literature and integrate their new knowledge into a structured argument via a full research proposal. This will develop the student's information literacy and skills in searching for, selecting and critically evaluating peer-reviewed research literature relevant to their MSc research dissertation and then synthesising this information into a literature review. Information literacy and being able to critique information are important skills in both research and industry. Feedback will be given via regular seminar/tutorial meetings with the supervisor helping to develop the student's confidence in discussing and critiquing science and scientific issues.

The ability to critically reflect on skills and experiences and then formulate a strategy for progression is a key learning skill and employability skill. The Project Management and Business Skills prepares students for professional practice. Here, students will reflect on their learning and progress, and appraise their skills through a skills audit to identify areas of potential development. This reflective approach promotes an integrated approach to theoretical knowledge, understanding and practical implications of their work alongside their personal thoughts and experiences, and feeds into employability skills as reflection is key tool employed by practicing professionals to evidence their professional development.

Students also will have the opportunity to undertake a traineeship (working with an academic staff member) or collaborative project (working with an external organisation). Both these modules have a strong employability focus and is assessed by: i) a reflective portfolio comprising a reflective report and a skills audit.

Students who do not speak English as a first language, or international students new to the UK Higher Education system and identified as needing support in Academic English skills, have the option to take an appropriate course, ENL-40005, which will develop the student's skills to help prepare their coursework assessments effectively. This is particularly valuable to support attainment in their collaborative project or Dissertation at Keele University.

The Dissertation module is assessed by a 15,000 - 20,000 word Dissertation and represents the culmination of the programme, providing an opportunity for students to put together a number of key learning outcomes from across the programme and to begin to take true responsibility for the formulation, management, conductance and final interpretation and presentation of a new piece of scientific research.

The pass mark in each module is 50% (with the exception of language modules which do not contribute to the overall degree algorithm) and students must pass all modules to obtain the MSc degree. A distinction will be awarded for an overall mark exceeding 70% plus the dissertation at 70% or above, marks between 60-69% plus the dissertation at 60% or above will be classed as merit, 50-59% with the dissertation at 50% or above constitutes a pass and less than 50% will result in a fail. A distinction can be awarded for a Masters' degree only.

For each module, a full assessment brief is provided either within each module handbook or as a separate document.

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

10. Accreditation

This programme does not have accreditation from an external body.

11. University Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the

student experience. Further information about the University Regulations can be found at: http://www.keele.ac.uk/student-agreement/

If this programme has any exemptions, variations or additions to the University Regulations these will be detailed in an Annex at the end of this document titled 'Programme-specific regulations'.

12. What are the typical admission requirements for the Programme?

See the relevant course page on the website for the admission requirements relevant to this programme: https://www.keele.ac.uk/study/

It is expected that applicants will already hold an honours degree in a scientific discipline appropriate to the chosen research project area although consideration will be given to related programmes. The minimum degree category for entry onto this programme is a lower second class honours degree from a recognised university or equivalent, in line with the 50% pass mark required for successful completion of this course.

Consideration will be given to candidates who do not meet these criteria, but can evidence appropriate, alternative professional qualifications and/or experience.

Applicants who have not had their secondary or tertiary education through the medium of English are expected to have attained the equivalent of an IELTS score of at least 6.5 (with no subtest lower than 5.5) or hold a previous degree which has been taught and examined in English (www.keele.ac.uk/pgapply/).

ENL-40005

Please note: All new international students entering the university will sit a diagnostic language assessment. Using this assessment, the Language Centre may allocate you to an English language module which will become compulsory. *NB:* students can take an ENL module only with the approval of the English Language Programme Director and are not able to take any other Language modules in the same academic year.

Recognition of Prior Learning (RPL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here: https://www.keele.ac.uk/qa/programmesandmodules/recognitionofpriorlearning/

13. How are students supported on the programme?

The Programme Director will be responsible for the MSc Geoscience Research programme and will hold an introduction session at the beginning of the programme to provide general guidance and advice to programme delivery and lines of accountability and student support. The Programme Director will also be available either directly (through office appointments) and Teams calls or indirectly via email or Teams chat threads for advice on specific problems students may encounter at any point throughout the programme.

Module leaders are available either directly via Teams or in person or indirectly via email or Teams chat for module-specific problems. One-to-one meetings will be arranged as necessary for student consultation. It is the responsibility of module leaders to ensure that appropriate feedback is provided to all students regarding both formative and summative assessment. They will ensure that such feedback is of a high quality and delivered in a timely fashion.

Each student will be appointed a named Academic Mentor from the academic teaching team for pastoral and academic guidance. Students will be able to meet with their Academic Mentor over the year (in person or by Teams) and normally students will meet with their Academic Mentor on approximately five occasions during the year. Academic Mentors will also introduce and promote the University's Personal Development Planning system to further promote and develop student learning. In addition, there will be an independent advisor available to liaise with students, either as a group or individually, on any aspect of the programme or personal development.

Individual project supervisors can provide additional academic guidance on research-related issues. When the student is undertaking a research project at another institute a supervisor will be appointed at that host institution. Guidelines are available to ensure that there is appropriate interaction between the student, host supervisor and Keele supervisor, and the student will remain in contact with their Keele project supervisor throughout the course of the project. Support whilst on placement is provided by the academic tutor from Keele University (i.e. the Keele-based research project supervisor) and the supervisor at the host institution. The Global Education Team at Keele University is responsible for all administrative issues with respect to overseas placements and the Turing Programme work placement grant.

All students are entitled and encouraged to make use of all central university services, including the Keele Postgraduate Association.

The student cohort will also be represented on the MSc Geoscience Research Student-Staff Voice Committee.

14. Learning Resources

The programmes will be taught in modern teaching rooms across the University which are equipped with computers, internet access and projection equipment. Rooms may be arranged either in traditional lecture format or more informally to allow students to work together in small groups.

Practical research training will be undertaken in appropriate research laboratories within the Faculty of Natural Sciences and students will experience authentic observation and interpretation via their research activities.

Individual module handbooks will provide a recommended reading list, which comprise both traditional text-based resources and a range of electronic multi-media resources that will be accessed through KLE. MS Teams will be used to enhance the student experience, learning and support during the period of engagement and provide a forum for the exchange of ideas and discussion of issues that arise. Where feasible, students will be housed in a PGT office or within the offices available to research groups. Access to the University electronic resources should be available in these offices via Wi-Fi or direct internet connection.

The programme will be supported by a number of guest speakers working within Geosciences who will give presentations at research group meetings, School Meetings, research seminars or society meetings. Students are encouraged to make full use of the learning opportunities these activities present by asking questions, staying to talk to the professionals after the sessions or contacting them later through email to answer any questions they may have on their particular area of expertise or general career advice.

The Library has many resources for Geosciences, both on campus and online. Further information about the library can be found at: https://www.keele.ac.uk/library/. To access online library services off campus students will need an Athens username and password, which is available from the computer help desk. Students will be encouraged to build a research profile on sites such as www.researchgate.net which is a useful networking tool and source of published peer-reviewed literature.

Students will have access to the IT Services at the University located in the library building. IT Services are responsible for the computing infrastructure in the university and for the support of all staff and students undertaking academic computing tasks. There is a large number of open access PCs available for students. All student PCs use a standard platform, which includes software such as Microsoft Office, web browsers, and other standard applications that may be needed. Printing facilities are available either in Schools or in the library building.

15. Other Learning Opportunities

Students are encouraged to take full advantage of the research seminar opportunities taking place in the School and they are expected to attend (where possible) all presentations relevant to their subject area (usually held within normal working hours 9am - 5pm). Seminars are usually advertised within the William Smith Building via posters and email.

Both Home and International students may have the opportunity to collaborate with an other institution or organisation whilst carrying out their research project at Keele University. Both of these learning opportunities may require funding from the student for in-person visits, but visits will be optional (unless the student has signed up for an international placement through the Turing Scheme).

Opportunities to attend events and guest lectures will be available through the active Keele University student-led society - Keele University GeoSociety or 'KUGS', which is open to undergraduates, postgraduates and staff members. KUGS regular advertises events through email and posters in the William Smith Building and representatives are present at induction events and in the foyer of the William Smith building at the beginning of the academic year to take modest subscriptions to the Society.

Students can also opt, or be recommended by their project supervisor (where practical and possible), to attend lectures, seminars and practical sessions, but typically not fieldwork, on appropriate Geoscience modules in addition to the modules they are taking for their degree. This may be useful for further developing key skills in their area of Geoscience and should be cost neutral.

16. Additional Costs

Field courses:

The School receives an annual financial contribution from the University to support the cost of the PGT field course programme. There is a co-contribution cost of £100 charged to students for an optional field course. This is offered via the MSc Environmental Sustainability and Green Technology Programme and open to MSc Geoscience Research students. The remaining costs are paid for by the University.

Travel:

Some travel costs may be incurred if an external project or collaboration is undertaken; any such costs will be discussed with the student before the project is confirmed. It will be possible for the student to select an internal project and that would not incur any additional travel costs.

Dissertation:

All students undertake a dissertation, which in some cases MAY include fieldwork. Students are responsible for organising their own transport and accommodation as well as paying any costs incurred whilst carrying out any Dissertation fieldwork. These costs are extremely variable as they are dependent on where the student carries out their project. For example, some projects will involve carrying out a field-based investigation on campus which will involve no costs.

Administrative:

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, printing and graduation. We do not anticipate any further costs for this programme.

17. Quality management and enhancement

The quality and standards of learning in this programme are subject to a continuous process of monitoring, review and enhancement.

- The School Education Committee is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Revalidation process.

Student evaluation of, and feedback on, the quality of learning on every module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of annual programme review.
- Findings related to the programme from the annual Postgraduate Taught Experience Survey (PTES), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.
- Feedback received from representatives of students on the programme is considered and acted on at regular meetings of the Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student's degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here:
http://www.keele.ac.uk/qa/externalexaminers/currentexternalexaminers/

18. The principles of programme design

The programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

a. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: http://www.qaa.ac.uk/quality-code
b. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations

Version History

This document

Date Approved: 30 August 2024

What's Changed

Reinstated LAW-40043 as SEM1 optional module

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1.3	2023/24	DEIRDRE MCKAY	25 August 2023	Changing ESC-40047 from Sem 2 to Sem 1. Added all the ENL modules and extra text on ENL offer.
1.2	2023/24	DEIRDRE MCKAY	17 July 2023	Change GEG-40030 Advanced Traineeship and ESC-40101 Collaborative Project and ENL-40001 so they run in BOTH Semesters as 15-credit optional modules, not as long, thin 2-sem modules.
1.1	2023/24	DEIRDRE MCKAY	19 May 2023	Due to the removal of an MSc programme in the School of Computer Science & Mathematics - remove ESC-40061 Smart Grid which will no longer run
1	2023/24	DEIRDRE MCKAY	08 March 2023	New version for 2023/24, coming into compliance with University regulations for PGT - 60 credit dissertation - while enabling September and January starts without re-teaching, and introducing new shared research training modules with MSc Environmental Sustainability and Green Technology for teaching efficiencies as well as adding two new Level 7 subject-specific modules in digital geoscience and data analysis and sustainable extraction.
1	2022/23	ALIX CAGE	23 August 2022	