

The University of Edinburgh

Internal Periodic Review

School of Geoscience

PGT Provision

28th & 29th March 2023

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Executive summary

This report comprises the outcomes from the internal review of PGT provision in the School of Geoscience.

The review team found that the School has effective management of the quality of the student learning experience, academic standards, and enhancement and good practice.

The report provides commendations on the School's provision, recommendations for enhancement, on which the School will be asked to report progress to the Senate Quality Assurance Committee, and suggestions on how to support developments.

Key Commendations

The review team commended the School for the diversity and quality of its PGT programme intake, the dedication of its Programme Directors to delivering high quality programmes and its recent recruitment strategies, including the use of gathered field admissions and the capping of student numbers. Further commendations are included in the report.

Key recommendations

The top three recommendations identified by the review team for the School to prioritise were:

- The review team **recommend** that the School provides strong leadership regarding the importance of the masters programmes to the success of the School, including clear communication of strategy and financial transparency to ensure that staff are fully aware of the value of the PGT programmes.
- The review team **recommend** that the senior management team within the School engender a school-wide culture in which the expectation is that all academics should value and engage in PGT learning and teaching activities.
- The review team **recommend** that senior management within the school take action to ensure equitable and transparent allocation of dissertations across the school via a clear and enforced policy. This should include:
 - undergraduate and PGT dissertation supervision being part of the workload allocations model
 - the use of a cluster model for dissertations based on broad disciplines (suggested four clusters), with all school academics required to be aligned to and supervise dissertations associated with one of the clusters
 - consistent dissertation requirements within each cluster (including length and format).
 - mandated contributions to the database of PGT dissertation topics.

Commendations, recommendations and suggestions

Commendations

Key strengths and areas of positive practice for sharing more widely across the institution.

No	Commendation	Section in report
1.	The review team commend the Director of Post Graduate Teaching for embracing and driving change.	B1
2.	The review team commend the PGT Programme Directors for their commitment and dedication to delivering high quality programmes.	B1
3.	The review team commend the School's decision to cap numbers for the PGT programmes.	B1
4.	The review team commend the School's move to utilising gathered field admissions, noting this has increased the diversity and quality of the PGT programme intake	B1
5.	The review team commend the School's effective conversions from international applications.	B1
6.	The review team commend the structure of the PGT programmes, noting that students appreciate the mix of theoretical and practical content that the programme provides.	B1
7.	The review team commend the School on their provision of a dedicated space, 'the Hub', for PGT students to gather in, noting the key role such spaces play in developing a sense of community amongst PGT students.	B2.8
8.	The review team commend the School for providing a dedicated Student Experiences team for PGT students.	B2.3
9.	The review team commend the School for undertaking a marketing review to understand and ensure the PGT programmes remain reflective of market demands.	B1
10.	The review team commend the teaching office staff for their dedication and their open office hours.	B2.3
11.	The review team commend the excellent work of the Tutor and Demonstrator Administrator and Academic Leader.	B2.7

Recommendations

Areas for development and enhancement – progress to be reported.

Priority	Recommendation	Section in report	Responsibility of
1	School leadership and strategy		

	<ul style="list-style-type: none"> The review team recommend that the School provides strong leadership regarding the importance of the masters programmes to the success of the School, including clear communication of strategy and financial transparency to ensure that staff are fully aware of the value of the PGT programmes. The review team recommend that the senior management team within the School engender a school-wide culture in which the expectation is that all academics should value and engage in PGT learning and teaching activities. The review team note the large number of programmes offered by the School under the MSc and recommend that the School undertake a strategic review and ongoing analysis, to ensure the portfolio of programmes within the MSc fits market demand and avoids unnecessary duplication. This should include mandating external market research (including with industry bodies) for proposed new programmes and withdrawal of existing programmes where overlaps/duplication are identified. The review team note anecdotal evidence provided by a student that the part-time MSc offering is not delivered in a way that is achievable in part-time hours. The review team recommend that the School examine the existing part-time model to ensure it is tailored to the needs of part time students, and also consider offering other accessible study options, such as CPD or micro-credentials. The review team note there appeared to be some instances of underfunding amongst the PGT programmes. The review team recommend that the resourcing for PGT programmes is reviewed to ensure all individual elements are adequately funded. The review team emphasise the importance of PGT programme directors having oversight, understanding and influence regarding the budget for PGT programmes. 	<p>B1</p> <p>B1, B2.7</p> <p>B1</p> <p>B2.5</p> <p>B1</p>	<p>The School</p> <p>Senior management team</p> <p>The School</p> <p>The School</p> <p>The School; PGT Programme Directors</p>
2	<p>Dissertation allocation</p> <ul style="list-style-type: none"> The review team recommend that senior management within the school take action to ensure equitable and transparent 	B1	Senior Management team

	<p>allocation of dissertations across the school via a clear and enforced policy. This should include:</p> <ul style="list-style-type: none"> ○ undergraduate and PGT dissertation supervision being part of the workload allocations model ○ the use of a cluster model for dissertations based on broad disciplines (suggested four clusters), with all school academics required to be aligned to and supervise dissertations associated with one of the clusters ○ consistent dissertation requirements within each cluster (including length and format). ○ mandated contributions to the database of PGT dissertation topics. <ul style="list-style-type: none"> ● The review team recommend that the school take action to minimise its dependence on external dissertation supervisors and external markers. 	B1	The School
3	<p>Skills</p> <ul style="list-style-type: none"> ● The review team recommend that the school undertake a strategic analysis to identify the general skills that should be delivered through the MSc and ascertain how the skills acquisition and development will occur across the courses. This strategic analysis should be informed by external industry advice on skills requirements and also ensure consistency of general skills development across the programmes. ● The review team note some programmes have a desire to be professionally accredited but had not been funded to do so. The review team recommend that the School provide funding for professional accreditation where appropriate. 	B2.1	The School
		B2.6	The School
4	<p>Programme management and support</p> <ul style="list-style-type: none"> ● The review team note the potential risks to the continuity of some MSc programmes posed by over-reliance on individual academics for the running of programmes. The review team recommend that the School take action to remove single points of failure via greater programme leader succession planning, increased programme team diversity and a wider range of academic contribution. ● The review team recommend that professional services staff be offered specialised training in digital skills and that 	B1	The School
		B2.7	The School

	<p>their ongoing skills-development needs be monitored, with additional learning opportunities provided where requested.</p> <ul style="list-style-type: none"> • The review team note that tutors and demonstrators within the school are only offered training in their first year. The review team recommend that tutors and demonstrators be provided with additional and ongoing annual training. • The review team recommend that the School reassess the marking-time allocation for demonstrators and tutors to allow them to be sufficiently compensated for the time spent in providing meaningful feedback. • The review team note the potential for conflict of interest in situations where a single academic occupies the roles of both programme leader and cohort lead. The review team recommend that an alternative point of contact is provided in such instances. • The review team note the substantial workload of the Tutor and Demonstrator Administrator and recommend that procedures are put in place to manage this potential single point of failure. 	<p>B2.7</p> <p>B2.2</p> <p>B1</p> <p>B2.7</p>	<p>The School</p> <p>The School</p> <p>PGT Programme Directors</p> <p>The School</p>

Suggestions

For noting – progress reporting is not required.

No	Suggestion	Section in report
1	The review team suggest that the School consider the introduction of a skills audit for incoming students, but note this would need to be appropriately resourced.	B2.1
2	The review team suggest that the School consider better ways to identify and utilise its PGT alumni network, particularly in relation to networking opportunities for existing PGT students.	B2.6
3	The review team suggest that the School consider how to clearly communicate to current MSc students changes that have been implemented in response to feedback, including those changes that have arisen from suggestions from students in the prior year.	B2.4
4	The review team suggest that the School consider reintroduction of a scholarship programme.	B2.5

Section A – Introduction

Scope of review

Range of provision considered by the review (see Appendix 1).

The Internal Periodic Review of the School of Geoscience in 2022/23 consisted of:

- The University's remit for internal review (see Appendix 2)
- The subject specific remit items for the review:
 - 1. Dissertations
 - 2. Skills
- The Reflective Report and additional material provided in advance of the review (listed in Appendix 3)
- The meeting of the review team including consideration of further material
- The final report produced by the review team
- Action by the School and others to whom recommendations were remitted following the review

Review Team Members

Externals Dr James Van Alstine Associate Professor In Environmental Policy Director of Masters Education Sustainability Research Institute School of Earth and Environment University of Leeds	Externals Professor David Gilvear School of Geography, Earth and Environmental Sciences University of Plymouth
Convener Professor Anita Jones Professor of Molecular Photophysics School of Chemistry	Internal Dr Calum Maciver Senior Lecturer in Classics School of History, Classics and Archaeology
Administrator Kate Nicholson Academic Policy Officer Academic Services	Student Liz (Soyoung) Yun c/o The School of Literatures, Languages and Cultures

The School

The School of Geosciences is one of the seven Schools within the College of Science and Engineering.

Physical location and summary of facilities

The School is based across two University campuses, King Buildings Campus and the Central Area Campus. The main locations within the Kings Building Campus are the Grant Institute, the Crew Building and the John Murray Laboratories. The main locations on the Central Area Campus are the Institute of Geography, the Drummond Library and the Edinburgh Climate Change Institute. PGT students are based at the Central Area Campus, where the PGT “Hub” is located.

Date of previous review

23 and 4 March 2106

Reflective Report

The report was prepared by the Director of Postgraduate Teaching (Simon Shackley). Input was provided by the Director of Quality (Neil Stuart), Deputy Directors of PGT (William Mackaness, Chris Smillie), Head of Student Services (Faten Adam), Eduardo Serafin, Susan Orr, Lea-Anne Henry and Corinne Baulcomb.

All PGT programme leadership teams had the opportunity to frame and contribute to the content of the report at the PGT Away Day in May 2022, with follow-on reports and discussion at the PGT Committee meetings since.

The School stated that the selection of items and analysis within the reflective report was informed by feedback from student representatives on SSLC’s over the past 5 years.

Section B – Main report

1 Strategic overview

- The School's current postgraduate taught offering includes fifteen Masters programmes (and one 60 credit component of a University-wide MSc). Teaching, programme management and supervision roles are allocated by the heads of the three research institutes (Earth and Planetary Sciences; Geography and the Lived Environment; Global Change), the Dean of the Central Faculty (for SRUC programmes), the Director of Postgraduate Teaching, the Director of Undergraduate Teaching and the several Programme Directors.
- Some PGT programmes are aligned specifically with the School's key research strengths, examples being MSc GeoEnergy, MSc Marine Systems and Policies, and MSc Environment, Culture and Society. Other programmes do not relate to a clear group of academics, postdoctoral researchers and PhD students in the School, such as MSc Carbon Management. There are also active academic research groups in the School for which there is no MSc programme, good examples being Health Geography (Geography & Lived Environment) and Forestry Science (Global Change).
- Current practices within the School mean that the development of new programmes relies upon the initiative and input from enthusiastic and motivated staff, reflecting their academic interests and the School's desire to address emerging global challenges and develop graduates equipped to tackle them.
- The review team **commend** the PGT Programme Directors for their commitment and dedication to delivering high quality programmes for the PGT students. It is clear the PGT Programme Directors are passionate about their teaching and are going above and beyond to provide their MSc students with meaningful learning experiences.
- The School has noted that attempts to develop programmes from 'the top down' in response to priorities identified by senior staff are difficult because under current practices a new programme requires a dedicated and committed 'driver', usually an academic who is appointed to that role or who agrees to take this on in career development discussions with their Line Manager (LM). LMs and DoPGT and DoUGT (for UT's) will work with academic staff to help them meet their career ambitions while meeting the School's priorities.
- The School has stated that it is not able to simply instruct staff in a top-down fashion in what they do, due to the principle and practice of academic autonomy. The School noted that academics may choose to focus on research and buy-out time from teaching which limits resource required to deliver MSc programmes and to create new programmes.
- While the School operates on a general 40/40/20 (teaching, research, citizenship) division of time for academics, it also currently allows academics that secure 60% or more of their salary costs from research projects to reduce time spent on teaching to 0% and for those that secure 50% to 59% of their salary from external funding to reduce their teaching load from 40 to 20%.
- It is noted that there are particular areas of study that are unable to be offered in the MSc, despite the School having active academic research groups in these

areas, due to the unwillingness of academics to teach these topics at the PGT level.

- The review team **recommend** that the School provides strong leadership regarding the importance of the masters programmes to the success of the School, including clear communication of strategy and financial transparency to ensure that staff are fully aware of the value of the PGT programmes.
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- The review team **recommend** that the senior management team within the School engender a school-wide culture in which the expectation is that all academics should value and engage in PGT learning and teaching activities.
- The review team discussed the current processes for programme development and coordination, and expressed some concerns that existing processes are overly reliant on individual academic contributions, with ad-hoc programme development and potential single points of failure.
- The review team **recommend** that the school take action to remove single points of failure via greater programme leader succession planning, increased programme team diversity and a wider range of academic contribution.
- While the review team **commend** the structure of the PGT programme, noting students appreciate the mix of theoretical and practical content that the programme provides, there are some concerns regarding the large number of programmes offered (15) and the level of duplication that exists amongst the programmes.
- The review team **commend** the School for undertaking a marketing review to understand and ensure the PGT programmes remain reflective of market demands.
- The review team **recommend** that the School build upon this marketing review by undertaking a strategic review and ongoing analysis to ensure the portfolio of programmes within the MSc fit market demand and avoid unnecessary duplication. This should include mandating external market research (including with industry bodies) for proposed new programmes and withdrawal of existing programmes where overlaps/duplication are identified.
- The issue of academic unwillingness to participate in teaching at the PGT level also became apparent in the discussion of the allocation of MSc dissertation supervisors. The review team heard how the School operates a voluntary approach to allocation of MSc dissertation supervision, which has allowed many academics to avoid undertaking such supervision, resulting in a greater burden being placed on those academics who do participate. The Director of Post Graduate Teaching informed the review team that 40 per cent of academic staff within the School have not undertaken any dissertation supervision within the last five years, with many others having only undertaken one or two in that time.
- In the Reflective Report, the School discussed the potential merits of moving towards a more mandatory approach to dissertation allocation, which would involve all academics sharing the load to ensure there is collective ownership of the PGT enterprise. It is acknowledged that this is not without challenge for the School, given the diversity of content areas covered within its programmes. A

potential solution identified within the Reflective Report is the pooling of clusters of topics by broad discipline, e.g. earth sciences and environmental geosciences; ecological and other aligned environmental sciences; environmental humanities; and environmental social sciences (including policy studies). The review team support this suggestion.

- The review team **recommend** that senior management within the school take action to ensure equitable and transparent allocation of dissertations across the school via a clear and enforced policy. This should include:
 - undergraduate and PGT dissertation supervision being part of the workload allocations model
 - the use of a cluster model for dissertations based on broad disciplines (suggested four clusters) with all School academics required to be aligned to and supervise dissertations associated with one of the clusters
 - consistent dissertation requirements within each cluster (including length and format)
 - mandated contributions to the database of PGT dissertation topics.
- Another topic of discussion regarding MSc dissertations was the use of external supervisors and markers. While it is acknowledged that there are some advantages to the use of external supervisors, including the specialist knowledge, expertise and experience they can offer, the review team had concerns about the implications of external supervisors on maintaining consistency of assessment. The review team also viewed the School's heavy usage of external dissertation supervisors as a barrier to implementing an equitable dissertation allocation model.
- The review team **recommend** that the school take action to minimise its dependence on external dissertation supervisors and external markers.
- The review team **note** there appeared to be some instances of underfunding amongst the PGT programmes. The review team **recommend** that the resourcing for PGT programmes is reviewed to ensure all individual elements are adequately funded. The review team emphasise the importance of PGT programme directors having oversight, understanding and influence regarding the budget for PGT programmes.
- The review team **commend** the School's decision to cap numbers for the PGT program and the move to utilising gathered field admissions, noting these changes have increased the diversity and quality of the PGT programme intake.
- The review team also **commend** the School's effective conversions from the international applications. The review team was impressed with the innovative practices being used to increase conversion of offers into acceptance of positions within the PGT programmes, particularly the practice of having Programme Directors call offer-holders.

2 Enhancing the student experience

2.1 The approach to enhancing Learning and Teaching

- Curriculum design and development is undertaken by the School committees, namely the Postgraduate Committee, the School Teaching and Learning Committee (STLC) and the Board of Studies.
- All new course or programme proposals are submitted to the PGT Committee for discussion and feedback, before proceeding to the STLC for similar review and feedback. This allows detailed scrutiny of new proposals prior to their submission to the Board of Studies, by which point it should be possible for the proponents to respond to questions raised by other staff. Ultimately, it is the responsibility of the Programme Director of each programme to review their curriculum, this being due to the quite specialised content of their own programmes.
- Programmes are designed to meet Learning Outcomes consistent with the Scottish Credit and Qualifications Framework. It is the responsibility of the Programme Director, and of individual Course Organisers, to ensure that this is the case. The three-stage review of new courses and programmes, and of major revisions to those, through the Postgraduate Committee, the Teaching and Learning Committee (STLC) and the Board of Studies is a way of ensuring that sufficient attention is paid to the Learning Outcomes and their consistency with the SCQF.
- One particular area of focus for the School in enhancing learning and teaching is the topic of skills. The School has noticed a shift in requests from MSc students towards greater inclusion of skill-based teaching and learning, to equip students with the skills to formulate solutions to environmental sustainability problems.
- The School has identified the need to embed education for sustainable development in the curricula to ensure that graduates possess the knowledge, skills, and attributes to meet global challenges of climate and biodiversity crises. The School would like to build on its solutions-focussed teaching and learning to include coverage of practice-focussed activities that are taking place in private, public and civil sectors and to provide students with awareness of different work contexts that could provide employment opportunities post-graduation.
- The review team **recommend** that the school undertake a strategic analysis to identify the general skills that should be delivered through the MSc and ascertain how the skills acquisition and development will occur across the courses. This strategic analysis should be informed by external industry advice on skills requirements and also ensure consistency of general skills development across the programmes.
- The review team noted there could be merit to the introduction of a skills audit for incoming students and **suggested** that the school consider this. The review team further noted that while a skills audit could be beneficial for gauging student skills at the time of matriculation and measuring skills attainment throughout the programme, it would also require considerable staff time. If a skills audit is to be pursued it is vital that it is appropriately resourced.

2.2 Assessment and Feedback

- The School utilises an increasingly wide range of assessment methods, from conventional exams and essays, to policy briefs, posters, presentations, blogs and podcasts. Many courses have one group assessment and this often involves

a group presentation. The School suggests that students appreciate the range of assessment types that they encounter in their compulsory and optional courses.

- PGT follows School-wide procedures and practices which have been continually enhanced.
- Prior to AY22/23, it was the policy that all coursework should be marked and returned to students within 15 working days of submission. If that proved not possible, students would be informed in advance and provided with a reason for the delay.
- As from AY22/23, the University regulations have removed the 15-day turnaround as a requirement. Although staff are encouraged to return the marks within this timeframe, the emphasis is now on Course Organisers ensuring that students know from the outset when their marks are expected and communicating lateness. The School has flagged that it will be undertaking a review of marking practices once there are better data available on the turnaround of marks.
- There were some concerns raised by students that attended the student session that the provision of assessment feedback was taking an unacceptable period of time. Due to poor levels of student participation in the review sessions, the review team were unable to gauge whether this was a widespread issue or unique to a particular programme.
- The School notes that every course is expected to offer the students an opportunity to receive formative feedback, either through a face-to-face meeting with the Course Organiser or tutors, or via written communication.
- Feedback from some PGT tutors and demonstrators that participated in the review hearings was that they were not being adequately compensated for their marking, with the allocated time for marking assessments being insufficient to allow for meaningful feedback. The review team **recommend** that the School reassess the marking time allocation to allow markers to be sufficiently compensated for the time spent in providing meaningful feedback.

2.3 Supporting students in their learning

- The system of supporting students has changed in AY22/23, with Personal Tutors being replaced by a new Student Experience Team (SET). While it is too early to comment on the effectiveness of this major change, the review team **commend** the School for providing a dedicated SET for PGT students.
- A large factor that influences the student experience is the degree to which the cohort bonds and coheres. DoPGT and DDoPGT work with the SET in organising a series of academic and social events throughout the year to help students get to know each other and bond as a cohort. In AY22/23, this has involved a Welcome Reception in Week One, a PGT Ceilidh in Week Eight, which was extremely popular, a number of external speakers and seminars, e.g. on climate finance, carbon off-setting, screenings of new films on sustainable development in South Asia and a panel discussion on the Future of Farming.
- Dissertation Mixer events are also an important means by which external organisations come to the University to meet MSc students and to propose dissertation topics around which a partnership project can be formed.

- The review team were impressed by the dedication and efforts to support students in their learning shown by several staff members within the School, including the Programme Directors, the Academic Leader, the teaching office staff and the Tutor and Demonstrator Administrator. The review team **commend** the teaching office staff for retaining open office hours, noting this is an effective way to offer tangible support to students.

2.4. Listening and responding to the Student Voice

- The School notes that systems are in place to ensure that student feedback is obtained from student representatives for each programme and fed back to Course Organisers via the Programme Director.
- This occurs throughout the academic year and is crystallised during the SSLC process at two points in each teaching semester. Programmes are asked to undertake an annual review with their teaching team and to reflect on improvements and to implement those that can be made for the following year.
- The School notes that some programmes have held student feedback sessions in the Summer in order to gather insights and feedback from students on the overall programme.
- An issue with the one-year nature of the MSc is that students do not remain within the School to see the implementation of student feedback in the next academic year. The review panel also note some comments from student representatives that they are not informed about steps to be taken in response to raised concerns.
- The review panel **suggest** that the School consider how to clearly communicate to current MSc students changes that have been implemented in response to feedback, including those changes that have arisen from suggestions from students in the prior year.
- An additional matter raised by students in relation to the student voice is the potential for an unsatisfactory situation where a single academic occupies the roles of both programme director and cohort lead. Should an issue arise with the programme director, students are advised to raise it with the cohort lead. To avoid potential conflicts of interest in such situations, and to ensure students feel they can raise any concerns they may have, the review team **recommend** that an alternative point of contact is provided in such instances.

2.5 Accessibility, Inclusivity and Widening Participation

- As noted by the School, the very high fees for MSc programmes detract from accessibility and inclusivity.
- There are some scholarships available to assist in widening participation in the MSc programmes, including the Mastercard Scholarships scheme.
- The School had previously offered some scholarships but these were discontinued due to concerns on CV19 impacts on School revenue. Given that CV19 measures have been discontinued, and the School has not experienced

revenue issues, the review panel **suggest** that the School consider reintroduction of a scholarship programme.

- The review team **note** anecdotal evidence provided by a student that the part-time MSc offering is not delivered in a way that is achievable in part-time hours. The review team **recommend** that the School examine the existing part-time model to ensure it is tailored to the needs of part-time students, and also consider offering other accessible study options, such as CPD or micro-credentials.

2.6 Development of Employability and Graduate Attributes

- The review team heard positive information from the School about the variety of skills and professional-based courses offered through the programme, which teach a range of work-related methods, techniques and skills, including, importantly, the use of team-based learning techniques.
- Each programme is understood to consider future careers in the design of the curriculum. As each programme has its own distinct jobs market, it is not straight forwards for a single school-wide approach to be adopted.
- The University has a Careers Service which organises relevant careers fairs, providing a wide range of services in support of future employment. Students who participated in the review sessions noted they had limited engagement with the Careers Service offerings.
- Dissertation Mixers are an important way in which students come into contact with potential employers, with some students who work with a partner organisation for their dissertation going on to work with that company or organisation post-graduation. Student feedback from the review sessions was that they would like more opportunity to interact with potential employers at the Dissertation Mixers.
- The review team heard that the School has had good success in forging industry collaborations for dissertation projects. There is increasing demand from industry for commercial partnerships which provides opportunities for students for dissertation projects.
- Conferences and seminar series are used as conduits connecting alumni with current students; however, students and some staff expressed interest in having more opportunities to connect with the MSc alumni network.
- While some LinkedIn networks of MSc alumni are understood to exist, these have been produced at considerable effort by individual Programme Directors. There is a need for a holistic and coordinated MSc alumni network, managed at the School level.
- The review team **suggest** that the School consider better ways to identify and utilise its PGT alumni network, particularly in relation to networking opportunities for existing PGT students.
- The review team also heard some Programme Directors express a desire to have their programmes professionally accredited. The review team heard that some line managers and Programme Directors have repeatedly petitioned for

accreditation costs to be covered. These programmes are not currently professionally accredited due to the School requiring the cost of professional accreditation to be met from the programme budget. This has not been possible under existing programme budgets.

- Professional accreditation offers value in that it shows that the programme has been recognised by an independent body for its course design and content, as well as the continued relevance of the programme within a professional setting. Professional accreditation can help the School ensure that programmes are offering the training required to develop the skills students will require for future employment and increases the future employability of students.
- Given the high fees being paid by MSc students, and the benefits that professional accreditation can provide, in terms of industry collaboration and increased graduate employability, it is expected that the School should fund professional accreditation processes.
- The review team **recommend** that the School provide funding for professional accreditation where appropriate.

2.7 Supporting and developing staff

- It is understood that the School offers staff the opportunity to undertake a teaching qualification, such as the Edinburgh Teaching Award (EdTA) or Postgraduate Certification in Academic Practice (PgCAP). However, pressure on staff with heavy teaching, research and/or administrative workloads can make this challenging in practice. The pressure of being an active PD, Cohort Lead, CO for several courses and supervisor of MSc dissertations means that carving-out time for obtaining a teaching qualification can be difficult. The School has suggested that when new staff join there tends to be a lower teaching load in the first year, and this could be a good opportunity for initiating PgCAP or EdTA depending on prior teaching experience.
- Support for academic staff is undertaken via yearly Performance and Development Review by Line Managers. Other supports for early-career staff by academic and PSS staff tend to be informal.
- The review team heard some concerns from staff regarding excessive workload arising from the School's current voluntary approach to allocation of dissertation supervision. The refusal of some academic staff to engage in PGT dissertation supervision means that some academics are having to supervise a large number of dissertations. There were also concerns expressed that junior staff feel unable to say no to additional work and are being potentially overloaded.
- As mentioned above, the review team **recommend** that the senior management team within the School engender a school-wide culture in which the expectation is that all academics should value and engage in PGT learning and teaching activities, including dissertation supervision.
- PGT utilises the School's wider Tutor and Demonstrator (T&D) system, including the guidance and support provided by the Tutor and Demonstrator Administrator. T&D recruitment occurs School-wide through advertising to PhD students. The review panel **commends** the Tutor and Demonstrator Administrator for their

excellent work in coordinating the T&D system, but notes the large workload and the risk that important functions being vested in one role represents a potential single point of failure. The review team **recommend** that procedures are put in place to manage the risks associated with this single point of failure.

- The review team heard from tutors and demonstrators within the school that they are only offered training in their first year. This practice seems inconsistent with that of some other Schools, where Tutors and Demonstrators are understood to be given the opportunity to take up to eight hours of further training each year. The review team **recommend** that tutors and demonstrators be provided with additional and ongoing annual training.
- The review team also heard from professional services staff that they would like the opportunity to undertake specialised training in digital skills to keep up with rapidly changing practices in this area of work. The review team **recommend** that the professional services staff be offered this specialised training, and that their ongoing skills development needs be monitored, with additional learning opportunities provided where requested.

2.8 Learning environment (physical and virtual)

- The review team were pleased to learn about and have the opportunity to tour the PGT-dedicated teaching space known as 'the Hub.' The review team **commend** the School on their provision of a dedicated space for PGT students to gather in 'the Hub', noting the key role such spaces play in developing a sense of community amongst PGT students. 'The Hub' space is an invaluable asset for the students and in creating student collegiality across the range of PGT programmes.

3 Assurance and enhancement of provision

- The School has appropriate approaches to setting, maintaining and reviewing academic standards across the PGT programme. Standards are reviewed via annual monitoring and the practices of the Board of Studies, Exam Boards and Special Circumstances conform to University policy and regulations. The School's Board of Studies provides the approval process for new courses and course changes and ensures all courses adhere to the SCQF's learning outcomes.

Appendices

Appendix 1: Range of provision considered by the review

Taught Programmes

- MSc Applied Environmental Hydrogeology
- MSc Carbon Management
- MSc Carbon Management (Online)
- MSc Earth Observation and Geoinformation Management
- MSc Energy, Society and Sustainability
- MSc Environment and Development
- MSc Environment, Culture and Society
- MSc Environmental Sustainability
- MSc GeoEnergy
- MSc Geographical Information Science
- MSc Marine Systems and Policies
- MSc Ecological Economics
- MSc Environmental Protection and Management
- MSc Food Security
- MSc Soils and Sustainability

Appendix 2 – University remit

The University remit provides consistent coverage of key elements across all of the University's internal reviews (undergraduate and postgraduate).

It covers all credit bearing provision within the scope of the review, including:

- Provision delivered in collaboration with others
- Transnational education
- Work-based provision and placements
- Online and distance learning
- Continuing Professional Development (CPD)
- Postgraduate Professional Development (PPD)
- Provision which provides only small volumes of credit
- Joint/Dual Degrees
- Massive Open Online Courses MOOCs (even if non-credit bearing)

1. Strategic overview

The strategic approach to:

- The management and resourcing of learning and teaching experience,
- The forward direction and the structures in place to support this.
- Developing business cases for new programmes and courses,
- Managing and reviewing its portfolio,
- Closing courses and programmes.

2. Enhancing the Student Experience

The approach to and effectiveness of:

- Supporting students in their learning

- Listening to and responding to the Student Voice
- Learning and Teaching
- Assessment and Feedback
- Accessibility, Inclusivity and Widening Participation
- Learning environment (physical and virtual)
- Development of Employability and Graduate Attributes
- Supporting and developing staff

3. Assurance and Enhancement of provision

The approach to and effectiveness of maintaining and enhancing academic standards and quality of provision in alignment with the University Quality Framework:

- Admissions and Recruitment
- Assessment, Progression and Achievement
- Programme and Course approval
- Annual Monitoring, Review and Reporting
- Operation of Boards of Studies, Exam Boards, Special Circumstances
- External Examining, themes and actions taken
- Alignment with SCQF (Scottish Credit and Qualifications Framework) level, relevant benchmark statements, UK Quality Code
- Accreditation and Collaborative activity and relationship with Professional/Accrediting bodies (if applicable)

Appendix 3 Additional information considered by review team

- Reflective report
- Analysis of Dissertation Supervision for SGS Programmes
- Dissertation Handbook
- Programme Handbooks
- School of GeoSciences PGT Programme Review 2021/22
- Analysis of PTES Results for PGT in the School of GeoSciences
- School of GeoSciences Annual Quality Reports
- Student-Staff Liaison Committee reports
- External Examiners Report Statistical Overview

Appendix 4 Number of students

GeoSciences PGT: Entrants for Selected Programmes					
Session Year	2021/2	2020/1	2019/20	2018/9	2017/8
Entry Programme Name	Entrants count	Entrants count	Entrants count	Entrants count	Entrants count
Applied Environmental Hydrogeology (MSc) - 1 Year (Full-Time)	5				
Applied Environmental Hydrogeology (MSc) - 2 Years (Part-Time)	2				

Applied Geoscience (Geoenergy) (MSc) - 1 Year (Full-time)			16	10	
Applied Geoscience (Geoenergy) (MSc) - 2 Years (Part-time)			1	0	
Applied Geoscience (Geoenergy) (MSc) - 3 Years (Part-time)				0	
Carbon Capture and Storage (MSc) (Full-time)					1
Carbon Capture and Storage (MSc) (Part-time) - 3 Years				0	
Carbon Innovation (PG Cert) (Online Learning) - 1 Year (Part-time)	1	8	6	1	0
Carbon Management (MSC)	23	31	41	38	18
Carbon Management (MSC) - 2 Years (Part-time)	2	1	2	0	1
Carbon Management (MSC) - 3 Years (Part-time)	0		2	0	
Carbon Management (Online Learning) (MSc) - 2 Years (Part-time)	0	29	24	11	15
Carbon Management (Online Learning) (MSc) - 3 Years (Part-time)	28	24	12	10	10
Climate Change Management (Online Learning) Pg Cert - 1 Year (Part-time)	0	12	12	12	14
Earth Observation and Geoinformation Management (MSc) - 2 Years (Part-time)	2	0	2	1	
Earth Observation and Geoinformation Management (MSc) - 3 Years (Part-time)	1	0	0		
Earth Observation and Geoinformation Management (MSc) (Full-time)	6	6	9	9	7
Ecological Economics (SAC) (MSc) (Full-time)	26	54	47	26	41
Ecological Economics (SAC) (MSc) (Part-time) - 2 years	1	0	2	4	
Ecological Economics (SAC) (MSc) (Part-time) - 3 years		0	1	1	1
Ecosystem Services (MSc) (Full-time)					4
Ecosystem Services (MSc) (Part-time) - 2 Years					2
Ecosystem Services (MSc) (Part-time) - 3 Years					0
Energy, Society and Sustainability (MSc) - 1 Year (Full-time)	25	36	24	27	17
Energy, Society and Sustainability (MSc) - 2 Years (Part-time)	2	1	1	1	0
Environment and Development (MSc) (Full-time)	26	42	21	30	16
Environment and Development (MSc) (Part-time) - 2 Years	1	1	0	0	2

Environment, Culture and Society (MSc) (Full-time)	27	31	20	8	17
Environment, Culture and Society (MSc) (Part-time) - 2 Years	1	6	0	1	1
Environmental Protection and Management (SAC) (MSc) - 1 Year (Full-time)	32	37	51	31	30
Environmental Protection and Management (SAC) (MSc) (Part-time) - 2 Years	1	0	1	1	1
Environmental Protection and Management (SAC) (MSc) (Part-time) - 3 Years	0	0	1	0	0
Environmental Sustainability (MSc) (Full-time)	28	31	38	23	27
Environmental Sustainability (MSc) (Part-time) - 2 Years	0	2	1	2	2
Environmental Sustainability (MSc) (Part-time) - 3 Years	0	0	0	0	
Food Security (SAC) (MSc) (Full-time)	29	28	16	19	15
Food Security (SAC) (MSc) (Part-time) - 2 Years		3	0	2	0
Food Security (SAC) (MSc) (Part-time) - 3 Years		0			0
Geoenergy (MSc) - 1 Year (Full-Time)	16	27			
Geoenergy (MSc) - 2 Years - (Part-Time)	0	1			
Geoenergy (MSc) - 3 Years (Part-Time)	0				
Geographical Information Science (MSc) (Full-time)	22	24	29	25	34
Geographical Information Science (MSc) (Part-time) - 2 Years	1	2	2	2	0
Geographical Information Science (MSc) (Part-time) - 3 Years	0	0		1	1
Geographical Information Science and Archaeology (MSc) - 1 Year (Full-time)	0	0	2	1	1
Geographical Information Science and Archaeology (MSc) - 2 Years (Part-time)				0	
Geographical Information Science and Archaeology (MSc) - 3 Years (Part-time)		0			
Global Environmental Challenges (Online Learning) (PgCert) (Part-time)	3	5	2	3	3
Managing Environmental Change (MSc) - 1 Year (Full-Time)			0		
Marine Systems and Policies (MSc) (Full-time)	20	25	24	11	14
Marine Systems and Policies (MSc) (Part-time) - 2 Years	2	3	1	3	0
Marine Systems and Policies (MSc) (Part-time) - 3 Years					0
Soils and Sustainability (SAC) (MSc) (Full-time)	12	2	2	8	3

Soils and Sustainability (SAC) (MSc) (Part-time) - 2 years	1	1	1	1	0
Soils and Sustainability (SAC) (MSc) (Part-time) - 3 years	0	1			0
Sustainable Plant Health (MSc) (SRUC) - 1 Year (Full-time)		0	3	4	3
Sustainable Plant Health (MSc) (SRUC) - 2 Years (Part-time)			1	0	0
Sustainable Resource Management (MSC)					0