

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2016-17

Part A: General Information

Subject area and awards being examined

Faculty / School of:	School of Earth & Environment
Subject(s):	<i>Engineering Geology</i>
Programme(s) / Module(s):	Entire MSc programme
Awards (e.g. BA/BSc/MSc etc):	MSc

Name and home Institution / affiliation of Examiner

Title and Name of Examiner:

Institution:

Address for communication:

Email:

Telephone:

Completed report

The completed report should be attached to an e-mail and sent as soon as possible, and no later than six weeks after the relevant meeting of the Board of Examiners, to exexadmin@leeds.ac.uk.

Alternatively you can post your report to: **Head of Quality Assurance**
Room 12:81, EC Stoner Building
The University of Leeds, Leeds LS2 9JT

Part B: Comments for the Institution on the Examination Process and Standards**Matters for Urgent Attention**

If there are any areas which you think require urgent attention before the programme is offered again please note them in this box

None

Only applicable in first year of appointment

Were you provided with copies of previous relevant External Examiners' reports and the response of the School to these?

NA

For Examiners completing their term of appointment

Please comment on your experience of the programme(s) over the period of your appointment, remarking in particular on changes from year to year and the progressive development and enhancement of the learning and teaching provision, on standards achieved, on marking and assessment and the procedures of the School

The MSc in Engineering Geology at Leeds is of both national and international importance. It produces excellent post graduate students who are employed by a wide range of companies into a profession which is included on the Home Office Tear 2 UK shortage occupation list. Over my tenure as external examiner there has been a steady improvement in: project preparation (this is ongoing and needs more work); the credit given for coursework (ongoing but still an issue); fieldwork skills in particular geomorphological mapping; soil and rock mechanics provision and help with the numerate parts of the subject. Health and safety during fieldwork is given high priority and the risk assessments forms for this activity are particularly good. There is a transparent procedure for the assessment of the project/dissertations with a paper trail of the decisions made – the inclusion of a marking rubric is an improvement. I have enjoyed very much coming to the University of Leeds and have been made to feel very welcome by both the academic and support staff plus the cohorts of MSc students.

Standards

1. Please indicate the extent to which the programme Aims and Intended Learning Outcomes (ILOs) were commensurate with the level of the award

- *The appropriateness of the Intended Learning Outcomes for the programme(s)/modules and of the structure and content of the programme(s);*
- *The extent to which standards are appropriate for the award or award element under consideration.*

I have reviewed the unit handbooks, learning outcomes and aims of all the units attached to the MSc in Engineering Geology. The ILO and the structure of the course are commensurate with the level of the award. The content is appropriate and prepares students for a career in industry or further study. The development of complex geological models in some of the projects I have reviewed is excellent and of industry standard.

2. Did the Aims and ILOs meet the expectations of the national subject benchmark (where relevant)?

- *The comparability of the programme(s) with similar programme(s) at other institutions and against national benchmarks and the Framework for Higher Education Qualifications.*

The Aims and ILO map onto the QAA subject benchmarks for this subject. The course compares well with other similar courses offered at Portsmouth and Newcastle.

3. Please comment on the assessment methods and the appropriateness of these to the ILOs

- *The design and structure of the assessment methods, and the arrangements for the marking of modules and the classification of awards;*
- *The quality of teaching, learning and assessment methods that may be indicated by student performance.*

The assessment methodology delivers a blended approach of coursework both written, verbal and group together with end of year unseen exams. This approach is appropriate to the ILO's – in particular the problem based learning assessments are particularly well designed and appreciated by the student cohort. I have reviewed a number of exam scripts, course work assignments and final year projects and confirm that the marking of the assessments is fair with a clear audit trail. The final awards are fair and every effort is made to give students credit for hard work – where there has been extenuating circumstances the arrangements allow students to achieve the best results they can. The amount of credit given to some of the course work artefacts does now reflect the effort and time dedicated to these pieces of work but and I am glad that this recommendation has been taken on board by the academic staff but feedback from this year's cohort suggests that not enough has been done.

4. Were students given adequate opportunity to demonstrate their achievement of the Aims and ILOs?

- *The academic standards demonstrated by the students and, where possible, their performance in relation to students on comparable courses;*
- *The strengths and weaknesses of the students as a cohort.*

As stated above there is a blended learning approach to this course which ensures students are able to demonstrate their strengths and build on their weaknesses. The coursework content is particularly well liked and does apply theory to practice. Some effort has been made by the academic staff to support students in the more numerate parts of the course (soil mechanics and rock mechanics). This has resulted in a much happier cohort of students who all commented on the excellent support they get in these two subject areas. The 40% failure rate from last year in the Hazard, Resilience and Sustainable Engineering Unit has not been repeated. The projects are generally of a high standard with only 4 failures. There is however a feeling that preparation for the projects is left too late in the year (May) leaving only three months for completion. This is a reoccurring theme which has again been magnified this academic year due to the high numbers of students which places serious strain on the small core teaching staff. Finding projects for a large cohort is difficult and plans need to be put into place for the coming academic year to ensure none of the students are disadvantaged in this important part of the PG degree. This is likely to be more acute in 2017-18 with an even larger cohort to deal with. I have discussed this with the Program Leader and seminars are planned earlier in the academic calendar to try and address this issue. Part time students are at a disadvantage with their projects as they are working and writing their dissertations as the same time with the same submission deadline as the full time students – one suggestion would be for the part time students to commence their projects in the first year of study

rather than in the second year. I would urge the University to address this anomaly as a matter of urgency.

5. For Examiners responsible for programmes that include clinical practice components, please comment on the learning and assessment of practice components of the curriculum

NA

6. Please comment on the nature and effectiveness of enhancements to the programme(s) and modules since the previous year

It would be particularly helpful if you could also identify areas of good practice which are worthy of wider dissemination.

Feedback is still a problem with no real improvement from last year in terms of timing but there has been an improvement in the quality of feedback. Timing issues could be related to the high student numbers (>30) this year and a relatively small core team. Numbers for the next cohort are in the 40's and therefore staffing may well be an issue going forward. The process of project allocation has been raised by the External Examiner on a number of occasions but this still seems to be an issue even with the changes made. This aspect does not appear to have been adequately resolved from last year as the student feedback is almost identical on this issue and I urge the new program lead to try and resolve this issue.

7. Please comment on the influence of research on the curriculum and learning and teaching

This may include examples of curriculum design informed by current research in the subject; practice informed by research; students undertaking research.

Although I have not been able to view the lecture content of each of the Units my impression is that through reviewing the projects and some of the lecture materials that up to date research is embedded into the curriculum. However, my concern from last year is still relevant that whilst many students choose to adopt numerical modelling as part of their project it is often at the expense of a good robust geological and ground model. The team need to ensure that students do not leave the University of Leeds with the opinion that the geology is not important and they can solve all problems with a sophisticated software programme.

8. Where the programme forms part of an Integrated PhD, please comment on the appropriateness of the programme as training for a PhD

NA

For Examiners involved in mentoring arrangements

9. If you have acted as a mentor to a new External Examiner or have received mentor support please comment here on the arrangements

I did receive mentoring in the form of visiting the project presentations with the previous External Examiner – this was a great help and worked well for me.

The Examination/Assessment Process

10. The University and its Schools provide guidance for External Examiners as to their roles, powers and responsibilities. Please indicate whether this material was sufficient for you to act effectively as an External Examiner.

Whether External Examiners have sufficient access to the material needed to make the required judgements and whether they are encouraged to request additional information.

Yes

11. Did you receive appropriate documentation relating to the programmes and/or parts of programmes for which you have responsibility, e.g. programme specifications or module handbooks, marking criteria?

The coherence of the policies and procedures relating to External Examiners and whether they match the explicit roles they are asked to perform.

Yes – these were all sent in a timely fashion.

12. Were you provided with all draft examination papers/assessments? Was the nature and level of the questions appropriate? If not, were suitable arrangements made to consider your comments?

Yes – all exam scripts, coursework and projects were available

13. Was sufficient assessed / examined work made available to enable you to have confidence in your evaluation of the standard of student work? Were the scripts clearly marked/annotated?

Yes – the standard of marking and feedback was very good.

14. Was the choice of subjects for dissertations appropriate? Was the method and standard of assessment appropriate?

Yes, I have looked at a selection of projects covering the range of marks. The subject range is impressive and cover a significant part of what could classify as Engineering Geology. The marking scheme developed for the projects and included in the making sheets is an improvement and I would encourage this rubric to be further developed and given to the students. The assessment is transparent with the moderation of marks being well documented and clear. I would encourage the team to give the excellent feedback on these projects back to the students as this is the final major piece of work but they receive no formal feedback. This was stated last year but as I understand it has not been taken up – I urge this to be done.

15. Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners? Were you able to attend the meeting? Were you satisfied with the recommendations of the Board?

Yes

16. Were appropriate procedures in place to give due consideration to mitigating circumstances and medical evidence?

Yes

Other comments

Please use this box if you wish to make any further comments not covered elsewhere on the form

I have attached my notes to verbal feedback for the student cohort gathered on 8th February 2017 and 7th August 2017 during the project presentations conference.

MSc Engineering Geology - Leeds University External Examiner mid-point Report - 08 Feb 2017

This report is a summary of the feedback received verbally from the 2016-17 Engineering Geology taught Masters Students on 08 February 2017.

Coursework:

Happy with the cw elements so far and most of the feedback is within the University recommendation of 15 working days. Where this has not been achieved then the academic has informed the cohort which is considered reasonable by the students. Some discussion regarding the amount of group work but the students understood why this was being done.

Course Delivery:

Main comment revolved around tutorial support for the Soil Mechanics Unit – especially the maths elements. They would like a similar system that runs in the Rock Mechanics Unit with tutorials run for those who need them.

Part time students: geological elements done first but there are many references to theories such as effective stress that are not done until the 2nd year. Would be better to the Geomechanics elements in year 1 maybe.

Computing:

No comments.

Fieldwork:

These have been good so far - site visits have been good and the Scarborough trip was well liked.

Project:

No adverse comments this year – students were happy with the procedures so far.

External Examiner
MSc Engineering Geology
University of Leeds
08 February 2017

MSc Engineering Geology - Leeds University External Examiner Summer Report – 7th August 2017

[Ex. Note: external examiners note]

This report is a summary of the feedback received verbally from the 2016-17 Engineering Geology taught Masters Students on 7th August 2017. Dr Jamie Standing from Imperial College was in attendance as the 2017-18 incumbent External Examiner.

Coursework:

The cohort were in general supportive of coursework but were of the view that more credit should be applied to balance the amount of effort required to satisfy the marking criteria – the seismic risk assessment coursework was identified as a case in point [Ex. Note: This has been raised by a number of cohorts and needs to be addressed]. Marks and feedback have not been given in a timely manner and certainly not within the University 15 day time frame – cavern design coursework was submitted over 11 weeks ago and feedback has not yet been received [Ex. Note: this is not acceptable and should be corrected going forward].

The cohort felt that help or formative feedback has not been given to all – only those who ask directly – this is felt to be unfair. I suggested that use of the VLE to post answers to queries would solve this problem – the cohort thought that this would be a good solution and I have suggested this to the course team.

Course Delivery:

Concerns raised in February regarding maths content in Soil and Rock mechanics appears to be resolved and there was praise for the excellent help and workshops/tutorials run for the Rock Mechanics Unit. The cohort would have liked the practice questions for Soil Mechanics to match more closely the format of the exam questions. 's lectures can extend to three hours with only a five min break – this is far too long a period to concentrate in one session [Ex. Note: I assume there are University rules on lecture timing and break requirements – these should be followed].

Computing:

The group felt that they needed a separate room for their computing group work – they were conscious that they were disturbing other PGT students when working on such exercises.

Fieldwork:

No major concerns but they singled out _____ as providing excellent support during the geomorphological mapping fieldwork.

Project:

Some major concerns were voiced regarding the project part of the course. These were as follows:

1. Would have liked preparation for the projects to have commenced earlier in the programme [Ex. Note: this is a perennial problem that should be addressed by the course team].
2. The project handbook was not issued until after the Cypress field trip [Ex. Note: although this should not affect the commencement of project work I see no reason why this document is not available from the start of the course].
3. No real information contained in the project handbook on the presentations such as length, content requirements etc...
4. No clear instruction given with respect to fieldwork risk assessment requirement with some students complaining that their fieldwork was delayed due to this.
5. Some students did not have a second supervisor [Ex. Note: this was vague from the students but I have recorded this for completeness].
6. Laboratory technician support was good but fell apart once the technician went on leave with apparently no cover [Ex. Note: a difficult one to solve but better information on when support can be given may help].
7. Part time students have the same submission deadline as the full time students for their projects but have to work during the week – this makes it difficult for them to complete on time [Ex. Note: maybe this can be solved by starting the project in their 1st year to give them more time].

External Examiner
MSc Engineering Geology
University of Leeds
31 August 2017

Part C: School Response to External Examiner Report**Name of School and Head of School (or nominee)**

<i>Title and Name of Responder:</i>	
<i>Position*:</i>	Head of School
<i>Faculty / School of:</i>	<i>Faculty of Environment / School of Earth and Environment</i>
<i>Address for communication:</i>	School of Earth and Environment Maths/Earth and Environment Building The University of Leeds Leeds. LS2 9JT United Kingdom
<i>Email:</i>	
<i>Telephone:</i>	

**If the individual responding to the report is not the Head of School please state their position within the School.*

Completing the School response

The completed School response (including the full original report) should be attached to an e-mail and sent to the Pro-Dean for Student Education in the relevant Faculty. Following approval by the Pro-Dean for Student Education, the School must send the response (including the full original report) directly to the External Examiner. A copy must also be emailed to the Quality Assurance Team at qat@leeds.ac.uk. External Examiners should receive a formal response no later than six weeks after receipt of the original report.

Response to Points of innovation and/or good practice

We are pleased to hear that the ILO and course structure are appropriate for the level of the award and that the course content is considered appropriate and up to date for a career in the sector, or further study. It is similarly pleasing to hear that the assessments were well designed and appreciated by the student cohort, that the dissertation projects were of a generally high standard, and that marking of assessments was fair and with a clear audit trail.

Response to Enhancements made from the previous year

It's pleasing to hear that there has been a perceived improvement in the quality of the feedback. However we note that this improvement has not showed up in the feedback quality question score from Programme Review, which is still less than 40% agree for both timeliness and usefulness. Most likely this is because the students' overall perception of the feedback was influenced by the extreme lateness of one or two particular assignments. The school is reviewing assessment and feedback more holistically, and one measure we may take is to reduce the amount of summative assessment, in favour of other methods of developing students' abilities. We recognise that the process of devising and allocating projects needs to be i) better communicated to the students by the Project Module Leader and ii) run in a way that is acknowledged by the students as being not only robust and fair, but also highly visible as a project activity, with a clearly defined project timeline. The process and timeline for project allocation as well as establishing the responsibility for disseminating this information will be discussed at forthcoming PDT meeting. As suggested it will be ensured that the project module handbook is available before projects start and the marking rubric will be included.

Response to Matters for Urgent Attention

If any areas have been identified for urgent attention before the programme is offered again please provide a specific response to them here:

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Response to questions 1-7 (and related comments)

Schools may provide a general response; however, where Examiners raise specific points these must be addressed individually:

We are pleased to hear that the ILO and course structure are appropriate for the level of the award and that the course content is considered appropriate and up to date for a career in the sector, or further study. It is similarly pleasing to hear that the assessments were well designed and appreciated by the student cohort, that the dissertation projects were of a generally high standard, and that marking of assessments was fair and with a clear audit trail. Some pieces of course work are still perceived as being under weighted. In order to fully assess learning outcomes and encourage students to undertake the required background reading, it is still felt necessary to have unseen examinations at the end of term. This is a position that our Industry Advisory Board always supports, and this limits the amount of credit available for assessed coursework items. The Programme Team will discuss this again at the Programme Delivery Team meetings,

With respects to comments on the point raised regarding project allocation please see the section on Response to Enhancements made from the previous year.

On the point of disadvantaging Part time students in their project, this is a limitation of the two year method of delivery and the way in which the University deals with part time study. We fully sympathise with the view and in the past have used a number of methods to try to alleviate this time pressure, with limited success. This point was discussed at length in the Exam board and several possible solutions were raised. The viability of those solutions, including lengthening the part time degree, is currently being investigated with the university and will be further discussed at the Programme Delivery Team meeting.

With regards to the comment in relation to the level of competence of geological models in projects, this is partly a staffing issue as the recruitment process of new staff heavily favours research in these areas. This is also partly an issue of what the students are being told by potential employers are useful skills to demonstrate. To re-emphasise the importance of geology and geological models the SOEE5017 module has been modified to have more specific content on geological models, and we have had external lectures provide content on this. Whether to add a section on "development of geological model" to the marking rubric for the project will also be discussed at the Programme Delivery Team meeting..

Standards

Response to questions 8 to 16 (and related comments)

Schools may provide a general response; however, where Examiners raise specific points these must be addressed individually:

We are happy to see the external examiner responded positively to these questions and happy to hear the project feedback being described as excellent and this year the new marking rubric provided space for feedback to be included. Students were informed should they want feedback on their projects, they should contact the Project Module Leader who would collate the mark-sheet comments from all markers, and forward. Feedback was only requested from students who failed the project so the Programme Delivery Team will discuss whether the mark sheets should be distributed without the need to request them..

Assessment and Feedback

Response to questions 17 to 19 (and related comments)

Schools may provide a general response; however, where Examiners raise specific points these must be addressed individually:

The examiner structured their response in a way that makes this not possible, as is allowable under the guidance presented to the examiner on the cover page

The Progression and Awards Process

Response to questions 20-35 (and related comments)

Schools may provide a general response; however, where Examiners raise specific points these must be addressed individually:

The examiner structured their response in a way that makes this not possible, as is allowable under the guidance presented to the examiner on the cover page

Other comments

Response to items included in the 'Other Comments' section of the report

We would like to thank you again for acting as external examiner, and for spending time discussing the programme with the staff and in particular taking feedback from our students. Over the period that you have been external examiner the extra visits that you have committed to which allow you to speak to the students have been much appreciated both as a platform for the students to raise concerns and as an extra source of feedback on the course.