

The University of Leeds
EXTERNAL EXAMINER'S REPORT
ACADEMIC YEAR: 2010– 2011

PART A: GENERAL INFORMATION

Subject area and awards being examined:

School of: Earth and Environment Programme(s) / Module(s):	Subject(s): Exploration Geophysics awards: (e.g. BA/BSc/MSc etc.) MSc
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The completed report should be attached to an e-mail and sent as soon as possible, and no later than 6 weeks after the relevant meeting of the Board of Examiners, to exexadmin@leeds.ac.uk.

Alternatively you can post your report to:

**Head of Academic Quality and Standards,
Academic Quality and Standards Team,
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?

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.

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.*

The course covers a wide range of topics, which are well taught to a high standard. Students have to work hard throughout the year, but those successfully completing the course are well equipped for a career in the geophysical industry, where this MSc is highly regarded. The standards applied in assessment guidelines are entirely appropriate for an MSc degree.

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.*

So far as I know there is no national benchmark. From the point of view of the petroleum industry, I can compare the course with MSc programmes at Imperial College, Royal Holloway and Manchester University. Standards of the Leeds course are at least as high as any of these, and a particular virtue is the breadth of the curriculum. This gives students much more flexibility for the future than they would have if they were channelled too narrowly into a confined sub-discipline such as seismic interpretation.

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.*

A variety of methods are in use, including written examinations and assessment of coursework and dissertation project. As well as formal written reports, some coursework projects require submission of a PowerPoint presentation; since this is the usual medium for technical reports in the petroleum industry, preparing such presentations is a useful skill for students to learn. As well as the dissertation, the independent project is assessed on a short verbal presentation of results, on response to questions in a viva examination, and on a poster summary; becoming adept at these different styles of reporting will be helpful to students when they join the workforce.

As well as model answers for the examinations, fairly detailed written guidelines are in place for the assessment of dissertations. These guidelines have been applied with a high level of consistency, as evidenced by the general agreement between the two independent internal markers, and have resulted in grades that are also in accordance with my own expectation.

A high level of good-quality feedback has been given to students during the course, though some students reported a decrease in the amount of feedback towards the end of the year, perhaps as a result of a crowded timetable.

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.*

The independent project, in particular, gives students an opportunity to demonstrate what they are capable of. The best students have done an astonishing amount of work in only twelve weeks, and have produced dissertations that (after editing down to a suitable length) should be submitted for publication in a suitable journal, such as EAGE's *First Break*. The weaker students have struggled to mould their detailed work into a coherent story and put it into a context that would explain why anyone should be interested in it. Possibly, students below a grade threshold should be required to produce a detailed write-up of the objectives and background of the project a few weeks after commencement, so that they could be given additional guidance on the overall shape of the project if necessary.

Many dissertations this year contained examples of alarmingly imprecise writing. In most cases the viva examination demonstrated that the students were able to explain correctly what they had been doing. The problem is therefore one of reporting rather than understanding. Perhaps, as suggested by one student, it would be helpful to have explicit guidance on the time that should be set aside at the end of the project for writing the dissertation; this may be longer than expected by some industrial supervisors, who may be used to a less formal style of reporting.

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

6. 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.

The use of MatLab rather than Fortran as the main vehicle for teaching programming will benefit students as it is widely used in the geophysical industry for writing code for ad hoc or experimental data manipulation. Use of PowerPoint as a vehicle for reporting some coursework projects is also useful training. Extensive use of RokDoc for rock physics investigations, both in coursework and in some independent projects, is helpful as it provides an environment for easy data manipulation; the usefulness of the software might be further enhanced by means of a short course from the vendor on workflows for carrying out some common investigations such as obtaining the best fluid and lithology discrimination from AVO.

7. 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.

The best independent projects are genuine research, with results that are potentially applicable to improvement of current industry practice in seismic processing (absorption compensation and zero-phasing).

The Examination Process

8. 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

9. 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?

- *The coherence of the policies and procedures relating to external examiners and whether they match the explicit roles they are asked to perform.*

Yes

10. Was sufficient assessed/examination work made available to enable you to have confidence in your evaluation of the standard of student work?

Yes. My main involvement was in the assessment of the independent projects, including reading dissertations, taking part in the vivas, hearing student presentations and viewing their posters. In addition, examination scripts and coursework were available for review, and time set aside to inspect them.

11. Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners?

Yes, the entire process ran very smoothly.

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

Yes.

For Examiners involved in Mentoring Arrangements

If you have acted as a mentor to a new external examiner or have received mentor support please comment here on the arrangements.

Other Comments

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



UNIVERSITY OF LEEDS

Professor Andy Dougill
Head of School of Earth and Environment
University of Leeds
Leeds
LS2 9JT

28th November 2011

Dear

Re: Response to External Examiner's Report (MSc, PGDip Exploration Geophysics), 2010/11

Firstly, thank you for examining our Exploration Geophysics programmes for the last academic session. Your views are an essential part of our quality assurance mechanism and we welcome your input into our teaching processes.

We are grateful for the thorough review of the programme provided by you and <<<>>>. In response to the specific issues that you have raised:

“A high level of good-quality feedback has been given to students during the course, though some students reported a decrease in the amount of feedback towards the end of the year.”

This has indeed been a generic problem, caused by deadline-bunching at the end of Term 2, in a small number of modules marked by a small number of staff. For 2011-12, the appropriate coursework items will be given rolling, short-term, deadlines across the whole of Term 2, both to spread out both student workload and to make time for feedback to be given.

“...Weaker students have struggled to mould their detailed work into a coherent story and put it into a context that would explain why anyone should be interested in it. Possibly, students below a grade threshold should be required to produce a detailed write-up of the objectives and background of the project a few weeks after commencement....”

We already have several mid-project deliverables, the most relevant being a draft literature review after 3-4 weeks. Supervisors are expected to give detailed feedback on it and I understand that they did so. Nevertheless, it is a useful point and we will expand the 'literature review' aspect to include aims, objectives, and a rationale for the project.

“..... examples of alarmingly imprecise writing. In most cases the viva examination demonstrated that the students were able to explain correctly what they had been doing. The problem is therefore one of reporting rather than understanding. Perhaps, as suggested by one student, it would be helpful to have explicit guidance on the time that should be set aside at the end of the project for writing the dissertation; this may be longer than expected by some industrial supervisors, who may be used to a less formal style of reporting.....”

We usually recommend a write-up schedule to placement students when we make our ‘monitoring’ visits in early July, and impress it on them when we do mock vivas in Leeds in late July. Nevertheless, briefing the industry supervisors more closely is a very useful suggestion and we will add it to the documents and process for this year’s cohort.

“ the usefulness of the software might be further enhanced by means of a short course from the vendor on workflows for carrying out some common investigations such as obtaining the best fluid and lithology discrimination from AVO ... “

In response to this comment, we have set up:

- (a) one vendor short course to be given here to the MScs (IKON Science & RokDoc)
- (b) one consultancy short course to be given here to the MScs (Equipoise & depth-conversion), and
- (c) one vendor training course (SeisSpace & ProMAX) has been attended by a staff member: as a result of which, new and important coursework material (marine seismic data processing) has been created.

Finally, thank you once again for your input. We look forward to seeing you again next year.

Yours sincerely,

Professor Andy Dougill
Head of School of Earth and Environment

The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2010– 2011

PART A: GENERAL INFORMATION

Subject area and awards being examined:

School of: Programme(s) / Module(s):	Subject(s): awards: (e.g. BA/BSc/MSc etc.) M.Sc.
School of Earth & Environment M.Sc. Exploration Geophysics (all modules)	

The completed report should be attached to an e-mail and sent as soon as possible, and no later than 6 weeks after the relevant meeting of the Board of Examiners, to exexadmin@leeds.ac.uk.

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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.

A review of overall student coursework loading over the full 12 month course.

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?

Yes

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.

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.*

This M.Sc. course in Exploration Geophysics is of a high academic standard and all the modules are clearly at the "M-Level". The course is very intensive over 51 weeks and is designed to cover a broad range of academic topics and skills training related to Exploration Geophysics.

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.*

This is a vocationally orientated M.Sc. training course which aims to take numerically competent students with a wide variety of B.Sc. backgrounds (geology / physics / environmental geoscience / maths / computing etc.) from UK and overseas. The course provides the necessary advanced geophysical training for employment in the hydrocarbon or near-surface geo-engineering industries by a choice of streams. The course is well respected by the professional industries and clearly meets these training criteria. It is one of the best M.Sc. courses in Exploration Geophysics in the UK, and the one that offers the broadest curriculum.

The M.Sc. has essentially two internal options : hydrocarbon exploration and near-surface geo-environmental geophysics. This year over 90% of the students have opted to take the hydrocarbon option. This academic year only 3 students took the near-surface option, thus making its sustainability long term a question that would have to be considered internally.

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.*

Students are assessed by mathematical exercises, computer – based projects, essays, field training reports, Powerpoint files, formal examinations, a final dissertation, one hour viva, poster presentation and a 15 minute presentation to invited industrial partners. I personally feel that the students are over assessed and the overall amount of assessment could be reduced per module without any academic detriment to the course. At M.Sc. level, my personal opinion is that students should be trained in producing high quality final professional technical reports on their work. Perhaps instead of requiring 3 or 4 small coursework items per module, this could be replaced with one modular summary report on a particular topic or field-based investigation. This would give students more time to produce a final professional and technical product, whilst also reducing the staff workload in turning around the numerous little assessments. All the coursework I looked at was assessed in detail by staff and detailed feedback given. The students complained that the time taken to turn around coursework increased in the 2nd semester. Personally I think you should at M.Sc. level carry out a smaller number of assessments, but expect a higher standard of final presentation and turn these assessments around promptly to provide positive feedback. I also wonder if students actually read all the detailed notes made by staff on individual coursework items. Perhaps for important coursework items, the students could, after reading the comments made, be required to produce a short self- assessment of their strengths and weakness that require further improvement. For example, the near-surface geophysics module could be assessed just by one professional site investigation report, based on a desk study, walk-over survey and one day of field geophysical surveying.

One particular worry to me is the fact that important coursework deadlines are set into the two exam periods. At Cardiff this practice is totally banned, as students must be given time free of other coursework pressures during the exam revision and exam sitting weeks. I feel that weaker students under-achieved in the formal exams and this may be one reason for this.

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.*

Given the large amount of assessment items embedded in the M.Sc. course and the full 5 day a week timetable (including Wednesday afternoons and weekend fieldcourses), I feel the students were always rushing to complete numerous coursework items in the evenings and at weekends, possibly not having enough time to produce a final quality product. On many M.Sc. courses the final independent dissertation project is where the student's ability for independent thought and higher level research capabilities are displayed, Leeds is no exception. Leeds' M.Sc. students only have 12 weeks to complete an individual project, compared to 20 weeks at Cardiff (where the final

dissertation is weighted much higher). Leeds students only have an intensive 12 weeks of desk study, research investigation and writing and I was amazed how much effort the very best students made in such relatively short time. Some of the weaker students produced limited theses with minimal background research reading and rather imprecise technical writing. A number of students focussed right into the detail of their project without really addressing the bigger picture of either why the industry might be interested, or the regional geological / tectonic context of the project. The weaker students carrying out software based data analysis relied on just using the default settings of graphical output such as colour scales etc. This could be due either to rushing to complete by the deadline, or not having enough practice during the taught course in producing a finished technical report. Even the two very best students (who were outstanding) only just crept into the M.Sc. distinction category by a few percentage marks which was a worry. Personally I put this down to too many individual assessments not allowing the very best students to demonstrate their full capabilities and gain coursework marks in the 75% plus range. To average 70% overall, its easy to drop individual coursework marks into the low 60% range, but this must be compensated for by the ability to achieve marks greater than 80% in other coursework items.

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

N/A

6. 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.

N/A this is my first year.

7. 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.

The curriculum is up to date and driven both by academic research and state-of-the-art industrial best practice especially in the hydrocarbon seismic exploration methodologies.

The very best independent project dissertations could with a little bit of further refinement be published in an academic journal.

The Examination Process

8. **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.*

I spent 5 days in Leeds and saw a full set of coursework and read 50% of the dissertation projects in detail.

9. **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?**

- *The coherence of the policies and procedures relating to external examiners and whether they match the explicit roles they are asked to perform.*

Yes, the Leeds academic and administrative staff were all very helpful during my 5 day visit.

10. **Was sufficient assessed/examination work made available to enable you to have confidence in your evaluation of the standard of student work?**

Yes I saw a full set of coursework which amounted to 8 large crates of assessed student work. I read individual dissertation projects and sat through a full day of student 15 minute presentations. I agreed with the final assessment marks provided by the Leeds University staff.

11. **Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners?**

The M.Sc. examination board was run with efficiency and professionalism.

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

Yes I was made fully aware of all student mitigating circumstances.

For Examiners involved in Mentoring Arrangements

If you have acted as a mentor to a new external examiner or have received mentor support please comment here on the arrangements.

Other Comments

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

The M.Sc. in Exploration Geophysics at Leeds is an excellent course delivered at a high academic standard, providing outstanding vocational training over a broad curriculum providing students with the necessary skills for students to enter the hydrocarbon exploration industries as both geophysical data processors and seismic interpreters. The resources made available to M.Sc. students are impressive in terms of computer hardware, lab facilities and professional standard software packages. The course clearly has industrial relevance, given that many companies sponsor individual students, attend the M.Sc. presentation day and most of the students already have jobs by the end of the course.

In my 18 year experience of teaching at M.Sc level, I have observed that with all mature M.Sc. courses, the temptation is to add new material every year to keep up with global developments

and new software. Gradually you find you are teaching 5 days a week and students (and staff) are becoming swamped by the workload. Periodically you have to review the total student workload, the number of individual coursework items and carry out a rationalisation exercise. You cannot teach everything about a broad subject, whilst also providing field-based experiences and skills training in at least three complex industry standard software packages. I think that the M.Sc. course is operating at full capacity over 51 weeks of the year, some taught material and coursework items could be taken out without any detriment to overall academic standards. The workload is clearly a shock to many overseas students and some rationalisation would allow students some extra breathing time to better develop their skills in following through individual coursework exercises to a completed professional standard.

Some students found the computer programming particularly difficult (as they had never programmed in their B.Sc. degrees) and suggested that they could have been directed to pre-course reading on the principles of programming with MatLab.

The Hydrocarbon Exploration Geophysics option is by far the most popular over the other near-surface geophysics option in the M.Sc. degree. There is some informal debate by staff over whether the near-surface option should be dropped due to low numbers. However since the demise of the M.Sc. course at Birmingham University, then Leeds is the only UK University to offer M-level training in near-surface geophysics. As a near-surface geophysicist myself, I would be sad to see its demise, but if the near-surface option can be taught efficiently using M-level modules in common with the other M.Sc. Degrees taught at Leeds, then the near-surface option would be sustainable long term even with low student numbers.

I am not sure you actually need a 60 minute individual viva with each M.Sc. student. Other Universities operate with a 30 minute individual viva, perhaps a 45 minute viva would be a good compromise? I found I had run out of questions after 40 minutes, especially as I had 11 students to viva.

Finally there is some debate about changing the examination structure from two exam periods into one sat at the end of the 2nd semester. On a poll of the M.Sc. students they were 100% in favour of the two periods of exams as this allowed them to spread the workload. A number of students said they would not have passed the exams if they were all sat in one exam period.



UNIVERSITY OF LEEDS

Professor Andy Dougill
Head of School of Earth and Environment
University of Leeds
Leeds
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28th November 2011

Dear

Re: Response to External Examiner's Report (MSc, PGDip Exploration Geophysics), 2010/11

Firstly, thank you for examining our Exploration Geophysics programmes for the last academic session. Your views are an essential part of our quality assurance mechanism and we welcome your input into our teaching processes.

We are grateful for the thorough review of the programme provided by you and In
response to the specific issues that you have raised:

Assessment workload

The workload for the programme has been consistent over the past few years. The programme is challenging and its graduates find employment easily (riding on that experience and reputation, as well as on their skills). In addition, generally the subject area as a whole is getting larger. The workload is now being monitored and reviewed and action has already been taken to moderate the workload in several ways for 2011-12:

- In Semester 1, overall, some 20-25 hours have been removed from the timetable. Modules with the more demanding numerical or computational coursework (e.g. SOEE5154, SOEE5115) have had optional 'drop-in' support sessions scheduled – anecdotal feedback is that these are proving very helpful. For SOEE5165 (seismic reflection acquisition & processing), some 30-35% of lecture contact time has been removed and replaced by workstation-based demonstrations and simple 'hands-on' practical tasks (with assessment able to be done *in* the class) to provide better reinforcement of the material prior to the January exam.
- In semester 2, the short teaching term (8 weeks compared to 11 in term 1) exacerbates any workload pressure. Here, we have tried to *manage* their workload better, by breaking it into several short assignments with short-range deadlines, *none* of which will be during the Easter vacation i.e. the examination revision period. Additional help will come from new vendor-provided training in software use, explicitly in support of coursework (and, later, projects). The two major (15-credits all in Semester 2) modules doing this are SOEE5171 (seismic reflection interpretation and sequence stratigraphy) and SOEE5128 (petrophysics & geophysical reservoir evaluation). Feedback and discussion with *this* year's cohort has

clearly indicated that they like rolling short deadlines as it provides them with a feeling of concrete progress, and the marks and feedback tell them more often how they're performing.

- We have noted your comment about your institution's "no deadlines during exam preparation time" rule, and are working towards it *this year* – and would hope to have it fully in place for 2012-3. For example, as well as the Semester 2 actions already described,
- To address this issue more fully, I've proposed that the collation of deadlines for each assignment, as routinely collated and produced by our support staff, should in future include *the credit value and date set*. From this, we can calculate and check the "credit load per week", or some related metric, that can inform the workload question properly.

Long term future of the near-surface option

Indeed – and in 2011-12, only *one* student is taking it. It should be noted that almost all of the teaching on this is shared, and given principally for other programmes. As you remark, removing this may not be the best way forward as the near-surface geophysics industry (albeit much smaller than the hydrocarbons industry) is very concerned about its demography and skills shortages. You make this point yourself in "Other comments"

Training in professional technical reports, rather than 3-4 small coursework assessments per module

We'd felt that we had a reasonable balance between reports and 'exercises' – the latter intended to rehearse lecture content and reduce examination pressure. As noted above, *this year's* cohort have asked that the exercises in the SOEE5141 seismic refraction module be retained. However, the 'professional report' point is well made – especially in relation to Michael Bacon's point about some poor writing in some Dissertations. The issue has been included in the overview described in the first point regarding workload.

Feedback time on coursework increased in semester 2

As noted above, the major semester 2 coursework tasks are to be subdivided into (usually) 4 sub-tasks, partly to avoid deadlines in the vacation, and partly to facilitate more, and more timely, feedback.

Time allowed to complete individual project compared to 20 weeks at Cardiff

You comment that our students only have 12 weeks to complete their individual project, compared to 20 weeks at Cardiff University. It is in fact a few days short of 15 weeks though in 2010-11 some students opted to attend the EAGE Boot Camp and the EAGE. The former will not happen again in the same way, but we will encourage the latter since it's very capable of being part of their project, because they can attend appropriate talks and posters. We had considered extending by 1 week in future: the main constraints are turn-round of marking, availability of administration/management staff (given the numerous other Master's courses), and the schedule 'butting up against' the next academic year.

Quality of Dissertation text

We have numerous 'waypoints' during the summer project, during which feedback is given – plus taught-course report-writing tasks that also give feedback on structure, editorial items, and so on. We will look to provide students with more explicit guidance about how long to spend on writing-up to achieve a good quality result. Comments about 'capping' marks in the 75s% even for exceptional pieces of work are noted.

Pre-course reading necessary as students found programming difficult

This *has* been done, but informally – it would be useful to formalise it as some sort of "pre-session skills checklist". We have also had some informal discussion about preparing an ODL package to present some of the "conversion" teaching (geology for the physicists; maths beyond A-level for

the geologists) as pre-session reading: but this will need a successful bid to a teaching fund to 'buy in' someone to write it all.

With regard to your other comments, you suggested reducing the viva time from 60 minutes. We will take your comments on board and will reduce the time to nearer 45 minutes.

It is useful to receive student comments about the planned changes to the academic year, and that they were all in agreement with retaining the existing 2-period exam period structure. These views are noted and will be passed on where appropriate.

Finally, thank you once again for your input. We look forward to seeing you again next year.

Yours sincerely,

Professor Andy Dougill
Head of School of Earth and Environment