School of GeoSciences

Earth Science Student Staff Liaison Meeting

Wednesday 12th November 2014 - 2pm

The Museum, Grant Institute

MINUTES

Staff Present: Linda Kirstein (Chair), Simon Harley, Godfrey Fitton, Dick Kroon, Alex Thomas, Massimo Bollasina, Andy Bell, Simon Tett, Alastair Robertson, Kate Saunders, Eliza Calder, Florian Fusseis, Hugh Pumphrey, David Wright, Mark Wilkinson, David Stevenson, Emma Latto (SSC & minutes)

Students present: Jessica Miller, Elliot Noble, Elizabeth Balmer, Megan Rogers, Nina Kahr, Raphael Say, Bria Steven, Nandini Nagra, Tasmin Fletcher, Rebecca Astbury, Maximillian Van de Vries, Mihai Cimpoiasu, Vlad Macovei, Julia Ziemann, Michael Stark, Maddie Reader

Apologies: Liz Elphick, Lucia Andreattiova, Ross McLean, Christopher Wright, Allana Cato, Chris McDermott

1. Introduction

Linda Kirstein welcomed everyone to the meeting and explained the purpose was to gain as much feedback from the class reps as possible about their courses and their experience throughout semester 1. All feedback/comments will be recorded and given a response. The minutes will be available on the Teaching Organisation webpages.

Linda asked for feedback on the new online feedback surveys that the Student Support Co-ordinator had been working on with reps to prepare for meeting. The general feeling was that they were not liked and feedback sheets in class would be more effective as students have too many deadlines and other survey's they are being asked to fill in.

Linda also asked the student reps about the possibility of a student chairing the meeting. As no comments were forthcoming she suggested that students feedback to her informally.

2. Pre-Honours

EASC08001 Earth Dynamics

- Overall people enjoyed the course.
- The Practical classes consolidated the lecture material well.
- Lectures were sometimes fast paced.
- Godfrey Fitton's lectures were good, Andy Bell's lectures were quick and it was felt they were aimed more at Geophysics students.
- Labs in weeks 8, 9 and 10 were felt to be too long.
- Slides were not up on Learn from previous week, Linda confirmed they were but maybe needed to be releases, she would check this.
- It would have been helpful to have had the notebook feedback before the Holyrood Park fieldtrip. Linda reminded the group that GeoPALs did a session on notebooks that would have been helpful for all to attend. It was noted by one of the GeoPALs leaders that there were a few changes on the trip that they hadn't included in their session. Linda will work with GeoPALs next year to ensure that they have a copy of the learning outcomes for the course.

Response from CO
It is good to hear that the changes recently made to the course have been well received. We shall continue to review course content and in light of some of the above comments look to reduce some content. The 'adaptive release' function had been used on Learn and appears not to have worked early enough in some cases, this will be checked next year.

GESC08002 Earth Modelling & Prediction

- Tutorials were helpful, a tutorial with practice exam questions would be good.
- It was felt that the link between lectures and tutorials were out of sync.
- Massimo Bollasina noted that the materials were disconnected on purpose; basic theoretical understanding is given at the start of the course so as when students start to work on examples they understand them.

Response from CO

- Tutorials were helpful, a tutorial with practice exam questions would be good.

This is currently done, especially during the last tutorials when most of the course material has been explained, though perhaps not clearly stated currently. Indeed the tutorial questions are taken from the same pool of questions that are part of the final exam test.

- It was felt that the link between lectures and tutorials were out of sync.

The tutorial questions cover the material that is introduced during the first two weeks and thus there is necessarily some mismatch at the beginning of the two-week period when the tutorial is being distributed.

- Massimo Bollasina noted that the materials were disconnected on purpose; basic theoretical understanding is given at the start of the course so as when students start to work on examples they understand them.

By this, I mean that some basic concepts need to be introduced in a rather theoretical framework to provide the students with a basic understanding of the concept and of its underlying properties. For example, the introduction of the basic trigonometric functions (sin, cosine) and their relationships. This is essential to provide the students with a general background which is then useful to solve various general problems regardless of their specific settings. We will however work to further reduce the gap between lectures and tutorials.

EASC08023 Evolution of the Living Earth

- Overall people enjoyed the course.
- Some felt that the labs and practicals could do with more explanation.
- They felt that Alex Thomas' lectures were quick and that there was a lot of information on his lecture slides.
- It was said that it felt like it was 2 courses, Palaeontology and Chemistry, they would like to see more of a link between lectures and labs. Alex noted the fossil practicals were an issue because of other commitments that Steve Brusatte had and couldn't be avoided but accepted that there was some disconnect between lectures and labs.
- Chemistry practicals were good but feel that more excel training would be beneficial.
- Students were late in getting feedback from one of the reports. Alex explained that this was due to staff illness and was unfortunate.
- In week 7 there are several hand in for other courses which caused stress, it was asked if Precis could be done earlier in the course? Alex agreed the Precis date could be changed.
- It was asked if the marking scheme could be made available. Alex confirmed that it was already on Learn.

Response from CO
I am glad that the majority of students have enjoyed the course. However I acknowledge that there are areas where the delivery of the course can be improved and am grateful for the feedback provided from the course questionnaires.

With regards the practicals for Part I (origin and evolution of life) there was a timetabling issue this term which meant that Steve Brusatte was unavailable for the practicals. This timetable clash will be rectified for next year which should also for better explanation of the tasks and the reasoning for their importance in the practicals. For the Chemistry practicals there is a detailed booklet that describes

each of the laboratory exercises and provides background for their importance. This year we have had mostly new demonstrators for the chemistry practicals, next year we will make sure that during each practical session the demonstrators make sure that students read the introduction section in the booklet for each exercise and explain why each of the measurements are important.

There is a lot of content in the global climate and environmental change part of the course (Alex Thomas). I have tried to change the course a little so there is a constant theme of the Earth's energy balance throughout. I will look into removing some of the material but this might not be possible if the knowledge of the climate system is required for later courses. An online discussion forum is available during the course for students to raise questions about the course they missed in the lectures.

The ELE course does have two distinct parts, this shouldn't really matter. Both the evolution and climate part of the course and the chemistry part of the course are important for Earth Scientists. The aim of ELE is to build up the grounding of knowledge of key parts of Earth Science. You will see later on in the degree programs how life and chemistry interact. To introduce these details at this stage would further increase the content of the course, which already has a lot of content. For next year I will try and make this point clearly to students.

The link between the lectures and the (chemistry) labs comes later on in the course (in weeks 9 and 10 Part IV, biogeochemistry). These lectures show the importance of carbon, and nutrient cycling which are relevant to the measurements made during the practicals. These lectures are at the end of the course because they must come after the introduction to chemistry in the "environmental chemistry" (Part III) lectures, which in turn must come after the other lectures because these are needed for the precis exercise.

I agree that Excel training for the practicals would be useful for the students as would some training in report writing using Word. I will look into replacing some of the practicals with sessions on excel and/or word, subject to the availability of a teaching room with student PCs. These are skill sets, however, that might be best learned in PT sessions.

The issue of the late return of formative feedback was unfortunately unavoidable. It was communicated to students at the time and feedback was returned in sufficient time for it to be useful for the assessed work.

The timing of the precis will be moved earlier for next year this will mean that it will be started before the climate lectures so students will only be able to start on half of the papers. The deadline cannot be moved any earlier than the end of the climate lectures in sixth week. I will also reduce the number of papers to be summarised to reduce the amount of work for the students.
I am glad that the students are asking for the marking scheme for the chemistry practicals. One of the learning outcomes from the precis is to engage students in the marking process to get a better understanding of what is being asked of them and the value of knowing how you are assessed.

EASC08021 Geomaterials

- Class rep not in attendance but sent feedback from surveys.
- Majority of people were enjoying the course and find it challenging.
- Lectures are fast paced, appropriate content in order to understand the material of the earth, hand outs were very helpful. Tetsuya's hand outs weren't in same order as the powerpoint which resulted in lots of flicking through during the lectures.
- Some very specific content the relevance of which is not obvious makes it hard to be interested causing a lack of motivation for the necessary reading.
- A small introduction at the start of the practical would be helpful of how it relates to lecture and what is involved in the practical eg key parts.
- The hand specimen work doesn't seem to match the course material. If the content was put into a real world explanation it would be more interesting.
- Monday's practical class is over-subscribed, Tuesday's clash with Natural Hazards which make it unavailable to a lot of the class. More demonstrators needed, however if class size was reduced that wouldn't be necessary.
- Would prefer not to have assessed practicals, just hand work in for a deadline.
- Difficult course and a review lecture would be helpful.
- Quiet lecture theatre, would help if lecturers wore microphone.

Response from CO

1. The course is perceived as being difficult. It is always going to be a difficult course compared to other prehons courses by virtue of the course content. However, that is not necessarily a bad thing. It's worth pointing out that the pass rate for the last couple of years has actually been higher than average for prehons courses. If students invest the time in learning then they can do very well.

2. A couple of comments about it not being interesting. To a certain extent that is true about background science....but the stuff we introduce is built upon in subsequent years and is important.

3. Comments about the Monday lab being oversubscribed. This is clearly an issue. It's worth noting the efforts we have gone to to rectify this (setting a quota, constantly reminding students to attend other labs). It's worth also commenting that a significant factor in this is a number of students ignoring the quota and presuming they can turn up when they want. TO (Howie) is revisiting scheduling of labs for next year, so hopefully this will avoid clashes with Natural Hazards. However, as I have repeatedly told the students, anyone taking Natural Hazards takes it as an optional course. There is not a lot which I can do about this issue during the present year.

4. There really aren't issues with labs being too long if students turn up on time, to the correct class, and get started. The practicals are designed to be self-explanatory so shouldn't need an intro.

5. Some comments about material in practicals and assessments not being covered in lectures. This is true and deliberate. As I outlined in the intro lecture, material is presented in lecture, labs and in the online reading (I'm tracking the number of ppl who do this as this is compulsory!). Some material is only presented in labs for obvious reasons....no point telling someone how to identify hand specimens in a lecture. There is a seamless overlap between all 3 aspects of learning. Some material covered in labs is then used later in lectures and vice versa. Assessments are also designed to push students and encourage them to do the extra reading which is a compulsory part of the course.

6. Some comments on assessments. We are revisiting this for next year. The composition practicals do need some updating and rationalisation, so we will take constructive comments on board. Anyone can complete the last assessed practicals in chemical equilibria prior to the session, you have a copy of the practical in advance and only attend to hand-in. However, the material will only be covered in the lecture or 2 prior to the practical. Also if you complete the assessed practical in class, you have the support of the staff/demonstrators which you may find beneficial.

EASC08011 Natural Hazards

- Class rep not in attendance but sent feedback from the surveys.
- The course could maybe go into more detail. It didn't appear well structured – jumped from subject to subject.
- Lectures are not provided in suitable printing format.
- It was felt that too much work was required for the hand ins.
- Level of content was not always suitable for Second Year course and for those who didn't have scientific backgrounds.
- Third practical (poster) didn't test knowledge of the hazard so didn't help.
- It would be helpful to have a specification for the practicals to show how to achieve different grades and what is expected content wise from the work.
- Practicals could be more informative about the assessment and what will be assessed.
- Not enough feedback from assessments and more demonstrators would be appreciated as it is a large class.
- Good that course has spread out assessment as it reduces pressure on final exam.

Response from CO
This course is aimed at First and Second Year students with a broad range of backgrounds (some of whom are non-scientists). We note this request for more detail, but have to balance that with the needs of the broader student intake. We believe this is currently a relatively well-balanced course as it is - and the final marks for this course corroborate that (i.e. most people do not find it too easy).

The nature of the course means that we progress systematically through a list of different hazard types, which although have some connections - are essentially individual types of processes. Each lecture therefore has a different theme - so yes we progress with different themes.

Most of the lectures are provided in PowerPoint format so that students can download, reformat and print off as required. Had any request during the semester been made to change this - it probably would have been acted on immediately.

In the third practical students are asked to choose an audience for their poster. Had the students chosen a technical audience they could have illustrated the full depth of their knowledge on the topic. In cases where students chose primary school children - the student needed to distil the technical information available to produce something audience appropriate. In both cases the student learns something.

With respect to the practicals some good suggestions have been made that I will take on board by producing more comprehensive information regarding what is expected for each practical.I will ensure that feedback from demonstrators is more comprehensive next year than it clearly was this year. I agree that more demonstrators would be helpful from this large class - I will put in a request for more.

METE08001 Meteorology: Atmosphere & Environment

- Some were happy with course and some were dissatisfied.
- Some extra material to support maths would be very helpful.
- It was felt that the assignment was hard to understand. David Stevenson responded that it has been changed to make it easier than previous year.
- Happy with the lab classes, they were helpful.
- Hugh Pumphrey's were good, they were interactive and students enjoyed them.
- More interaction from Massimo Bollasina's lectures would be good.
- Hugh Pumphrey said that he had seen in online feedback that students were not sure what to expect in the exam, he had done some work on this so that will communicated in due course.

Response from CO

- Some extra material to support maths would be very helpful.

I don't think it is particularly feasible to do anything about this for this year - although I have opened discussion forums for questions, so students could ask maths-related questions and the course team will post answers. For next year, we will review the maths in the course, and either reduce it, or more clearly warn people of what they should expect. There has always been some misconception that Meteorology is a 'Geography'-type subject, whereas in reality it is much more a 'Physics'-type subject. This course caters for a broad spectrum of students, and I think dumbing down the maths will risk alienating the physics students who like that stuff, so it is a difficult balance. I often go to the Academic Fair at the start of S1 and talk to students about the Meteorology courses; I spend a fair amount of time warning those considering Meteorology that it has some Maths and Physics (I probably put off more students than I recruit; but I consider that a useful service).

- It was felt that the assignment was hard to understand. David Stevenson responded that it has been changed to make it easier than previous year.

I have gone back and looked at the assignment questions I set, and I think they are clear. Nevertheless, if I use these again, I will attempt to clarify them further. The question most commonly misinterpreted was phrased: "What ranges of air temperature, relative humidity, and sea-level pressure were measured by the automatic weather station during the Monday, Tuesday and Thursday labs?" The word 'ranges' seemed to be the problem. I wanted a range of temperatures during the Monday lab (i.e. from 2.10-3.40pm, so maybe 10.5 to 12.5°C), then the Tuesday lab (10.00-11.30am), etc. But several people either gave me just 2°C (sort of understandable), or gave me a range over the whole week (which they should have realised didn't make much sense in conjunction with the previous and following questions). In my defence, lots of students did understand my questions and gave me the right answers. Perhaps I should preface my questions: 'Please read the questions carefully before answering.' The average mark was somewhere in the 60s, and there was a reasonable spread of marks. I think that is actually the sign of a good assignment. I think some of the negative comments likely come from students who got low marks. I think students would probably be happier if they all got high marks, but that is not particularly useful.

- Happy with the lab classes, they were helpful.

Good to hear.

- Hugh Pumphrey's were good, they were interactive and students enjoyed them.

Yes, students consistently like Hugh's lectures, we should all learn from him. He makes excellent use of clickers by all accounts, amongst other things. I think he also supplies hand-outs, which students like. I don't supply hand-outs for my lectures (not sure about Massimo). We should probably be consistent, but I find it annoying to produce hand-outs for a class with 86 students, partly because of the high numbers, and partly because a quite variable number actually turn up (30-60ish), so you risk wasting hand-outs or running out. I also think hand-outs discourage note-taking, which is important.

- More interaction from Massimo Bollasina's lectures would be good.

I will pass this on to Massimo.

- Hugh Pumphrey said that he had seen in online feedback that students were not sure what to expect in the exam, he had done some work on this so that will communicated in due course.

Yes, the feedback was collected just before Hugh devoted half a lab session to past exam questions, and before I did my revision lecture which went through some past exam questions. I have also opened a discussion forum where students can ask about past questions. We will consider putting together exam questions associated with each lecture (or week of lectures) and posting these on Learn throughout the course. I think this would be useful.

3. Third Year

Geology & Physical Geography

- Reps sent their apologies.
- Linda Kirstein noted from what she has seen on the online surveys that the students felt there were too many geology courses. Linda explained the format and that only 40 credits were straight geology.

Degree Program Convenor Response
The third year program is well balanced with 40 credits of Geology courses, 20 credits of GPG focussed field trips, between 20 and 40 credits of Geography options and two skills courses which were developed for GPG students initially: Quantitative methods in Earth Science and Geology & Landscapes. It is true that much of the Geology takes place in semester 1 and the GPG material in semester 2 but this is a joint honours degree.

Geology

Igneous & Metamorphic Petrology
This was top rated course from the cohort. They enjoyed the course and asked if they can have more hand specimens. They would like the assessment on thin sections earlier in the semester. Recorded lectures were also asked for. Godfrey Fitton thanked the reps for the comments and agreed that more hand specimens would be good. He explained that when the students go to Mull/Kinlochleven they will have more exposure to rocks. Simon Harley said that he was putting extra work into his practical to cover metamorphic rocks.

Response from CO
Thanks for those kind words. We really appreciate a bit of positive feedback. We'll do our best with hand specimens but it isn't always easy to get multiple specimens. Most are from research collections, and some have been carried long distances across deserts, over ice caps, from erupting volcanoes, or through equatorial swamps. There will be lots of opportunity for studying hand specimens in the field (Spain, Mull, Kinlochleven).
We really do want to know what you can do on your own when faced with an unknown thin section, hence the practical exam. Assessments in class would eat into practical time, which is already stretched. Note that there was a formative practical assessment in week 1. The practical section of the exam is generally done better than the theory section.

Structural Geology
Mixed reaction about course-good and bad. Main point was the amount of work was felt to be too much for a 10 credit course. Student's liked how the practicals linked to lectures. A longer break between lectures would be good. Demonstrators didn't seem to know was happening in course eg. different answers, level of feedback. Can lectures be recorded? Can they be shown how to use software required for course and could structural geology be introduced in the pre-honours years. Florian Fusseis noted comments from students and confirmed that he thought 10 hours a

week for the course was appropriate. He appreciates that Structural Geology is new to the Third Year and has ideas about perhaps introducing field trip in future. Florian said he would give short break between his 2 hour lecture in future. He also said that he has office hours that students can use to go and ask questions about anything they are unsure of but no one ever has yet. Alastair Robertson noted that he agreed it was a good and important point about introducing structural geology into pre-honours years. The Geophysics rep said that the Geophysics students appreciated the reading materials. Though at times they felt that their knowledge wasn't considered, they also asked if lecturers can be clearer for them. Linda Kirstein and Hugh Pumphrey commented that they were aware of this. Florian also noted awareness and is looking at revisiting some material for the geophysics students.

Response from CO
The number of lectures won't be reduced, but I will stretch the material and bring some related to thrusting in Inchnadamph already – the location on the planet where thrusts were originally identified and a Mekka for structural geologists. Geophysicists who currently don't go to Inch will be given additional reading to catch up. Another part of the lecture material will go to Kinlochleven (related to microstructures). Next year's lectures will identify core material – to be examined – and advanced material which I will discuss but which does not form part of the exam. As of next year, all practical material has to be submitted electronically through turn it in. Students will be made aware of plagiarism and I will strictly follow protocol in each single case we discover.

Lectures are already recorded and available on Learn. Automatic recording of lectures was requested in May, but IS failed to install it until now.

In the first lecture, students were presented slides that clearly outlined forms of contact with me and my demonstrators – by email 24/7 with a response usually within 24 hours, me in person during my office hours, and demonstrators whenever necessary.

I furthermore would like to mention quite severe issues that arose from late-coming and the use of mobile phones in class.

The course material is collated from various textbooks, most of which are available in our library. The course requires minimum pre-knowledge and even geophysicists should have seen quartz and feldspar in a thin section prior to year 3. I do consider it a necessary skill in Third Year to be able to draw simple cross sections.

I do consider a 10-credit course worth a maximum of 10 hours of work per week.

Also, I would ask student reps to convey issues to me in person as soon as they arise and not wait for the SSLC. I am happy to address the ones that can be addressed immediately.

Palaeontology
Course was good, Steve Brusatte got thumbs up from the group. They felt that they would like more work maybe lectures or labs? Dick Kroon responded that it was a field based geology course and they learned on the excursions.

Response
Next year Palaeontology will have a new course organiser Steve Brusatte. Steve will do some changes and although the course will be primarily field-based the number of field trips will be reduced to ~3 so that a few more lectures and specimen-based practicals can be added particularly at the beginning of the course, as well as group work during which we identify and discuss fossils found on the fieldtrips.

Sedimentology
Everyone enjoyed the course and agreed the material was good, though it was felt they were expected to have more carbonate knowledge than they have. Some of the hand outs could be better organised, more hand specimens would be good. They were happy with formative feedback work. Can lectures be recorded. Alastair Robertson said that Tom Challands had been standing in for Rachel Woods teaching this year of carbonates so this may explain different expectation of knowledge. Alastair noted that attendance at the theory lectures had been low and that in the practical classes some people were leaving before class had finished.

Response from CO
No further comment.

Hydrogeology 1: Applied Hydrogeology
People enjoyed the course and said that the work depended on how much you wanted to put into it. The rep for EG added that her year group enjoyed the course and that the tutorials are good, they also liked the presentations every week.

Course organiser response:
No further comment.

<u>Environmental Geosciences</u>

Quaternary Environmental Change
Everyone enjoys the course. Dick Kroon's lectures and practicals are good they consolidate the work they do in the class. Work was to be submitted at midnight which students found hard going, this has been changed now though**.** Feedback from some work was given after next assessment was due so they would have liked this sooner to be able to use the feedback constructively.

Aquatic Systems
Again this course is enjoyed. They asked if practical element could be added. Bryne Ngwenya had gone through equations with class which was very helpful. Would like the course to be more hands on.

Earth's Atmospheric Composition
Students aware this is new course and that has been changing due to feedback being given which is fine. The maths and chemistry is hard – weekly tutorials would be good. Some did struggle with chemistry as it had been 2 years since they had done any. Linda Kirstein responded that yes this was the first year the course had so all feedback is important.

Response from CO
The maths is more than EMP and is well within the remit of EMP2. I stripped most maths from week 4 or 5 onwards but I'm hoping to put some of that back in next year when the students have taken EMP2 as a prerequisite for this course. The course is not particularly front-loaded with chemistry. During my class time I worked through problems and the course is supplemented by revision classes and pop quizzes. The students must've gone through 20-30 exam-type problems by the end of the course.

Geophysics

General feeling amongst students was that they were satisfied with the degree programme. The theoretical and practical elements matched their needs. The rep noted that the 2 students on the Geophyics & Geology degree programme had no practical classes for Geophysics. Hugh Pumphrey responded that he is aware of this problem and that Measurement Techniques was the main course affected. This is the first year that there have been students on the Third Year of the programme so this problem has been highlighted. Any redesigning of the year and structure is very difficult but it is a known problem. The assessments have been overwhelming but staff approach has been good. There was a feeling of disconnect with Physics and GeoSciences. Some felt that the degree could be more job orientated, Hugh responded that that degree was for education but recognised that training for the job is important. The Seismic exercise has been reintroduced into Helmsdale course to help with this.

Response from DPC
I don't think that I have any further comment to what I said on the day, except to note that the third year is the prime target for any future re-design of the degree; we are aware that anything we can do to rationalise and simplify the structure of this year would be a good thing.

Helmsdale
Interesting and useful course. The Interpretation exercise was great and liked that they had opportunity to work with software. It was felt that 7 weeks was to long for report and would have liked earlier hand in date. Mark Wilkinson explained that the reason for the lengthy time for report was to benefit the 2+2 students. Linda asked if everyone was aware of the deadline diary so as they can check when all deadlines for the year are due. No one seemed to be aware of it or what it was.

- **Action: TO to remind students of where to find the diary**

The course is not compulsory for the Geophysics and Meteorology students but those who went enjoyed it. The late hand in had caused problems for those who did

the report early on as they had not had the experience in Measurement Techniques. It was noted that Measurement Techniques was recognised as helping with report writing. For Helmsdale there had been some ambiguity about the summary diagram and confusion regarding using photographs. Mark clarified that an unannototed photograph was not enough.

Computational Modelling
Students liked the course but found the amount of information overwhelming, more explanation would be good. Some weeks are ok but others too much it goes over their heads. In other courses students can their own work but for this course they feel they need more contact time. Simon Tett said he has changed the programme this year and that other than the 2+2 students no one had handed in formative work from formative/outside work. He is worried that the outside work is not being done and reminded reps that the students need to engage and put the time in. Simon summarised that he would take away from the meeting that the students needed more guidance.

Mathematical Methods
Course has been well delivered and students are happy with it. One comment was made that there were not enough work solutions. Hugh Pumphrey confirmed he was adding more as the course goes along and recognises it is not a complete set yet. Hugh also said that because of the type of class having interactive lectures would not be effective.

Measurement Techniques in Geophysics
The course material is well written and appreciated. 70% for the second report was felt to be too much. David Wright commented that previously it had been 5 reports worth 20% each, the feedback from then had been change for this year. Hugh Pumphrey confirmed they would be reluctant to change as feedback was good.

Response from CO
Not much to add to this. I feel that the course needs a re-write at some point, but that this is best done as part of a wider re-organisation, possibly by merging this course with Comp. Modelling to present the mathematical and computational aspects in a more integrated manner.

4. Fourth Year

Geology

Overall the students like the broad range in the compulsory courses. They felt that there was not scope for option courses in the Fourth Year. Linda Kirstein explained that Dynamic Stratigraphy had to be taken in the Fourth Year due to staffing issues. This has meant space was limited and that some Geology & Physical Geography had not been able to do it this year. The reps also reported that they the year were disappointed that Advances in Metamorphism was not running this year. Simon Harley said that it ran every 2 years and the students who were staying on to do the Fifth Year would be able to do it then. Students who were taking the Geoscience Outreach courses and Hydrocarbons and Geophysical Exploration were enjoying

them. The reps said that they would like more Professional Body/Industry talks, Linda Kirstein explained there have been several organised but the attendance had been poor so that needs to be considered.

Fifth Year MEarthSci
Students asked if they could have an introduction talk to the Fifth Year so as they can find out more about the course and help them decide if they would like to stay on. Eliza Calder will invite the Fourth Year along to a talk in due course. Rebecca Astbury, who is currently in the Fifth Year also said that the Fourth Year were welcome to ask her or the others on the programme any questions they may have.

Response Eliza Calder invited the Fourth Years along to the Fifth Year project proposal presentations - held this past week on 24th November - and provided an introductory talk regarding the structure and content of the Fifth Year MEarthSci year, as well as information about how students should find a project/supervisor. Another meeting will be held in late April - to coincide with the Fifth Year final project talks - where the Fourth Years will be provided with more information about specific projects available.

Formation and Evolution of Continents
Good course but queried why it was 100% exam. Simon Harley explained the structure of the degree and that the course is lecture based so exam is suitable.

Response from CO
The examination of two hours duration is appropriate in length for a 10 point course, and as this exam involves the students answering 2 essays from a choice of 6 highly structured questions, 3 from the first half of the course and 3 from the second half, it covers the bases and enables an appropriate level of choice. The introduction of an additional or alternative element of continuous assessment would convey an incorrect message that some of the topics are 'wrapped up' early, whereas in reality they all contribute to the global understanding developed and assessed at the end of the FEC course.

Frontiers in Research
The reps reported that some students weren't keen on research. Linda Kirstein responded that there was some confusion about what the course actually is. It is to help make you aware of Science today and what is happening in the world. The course gives seminar work and helps with training for good transferable skills. Simon Harley backed this up said these skills are good to have for future situations. A recent email was sent to the Fourth Years by Florian Fusseis to explain how the course will run this year and the changes made from last year. Rebecca Astbury (MEarthSci Fifth Year) commented on how useful the course had been.

Response
The recent email should explain how the course will run. If further questions arise please contact the CO Florian Fusseis.

Evolution of the Modern Earth
Could there be more text on the slides please? The feedback is good but sometimes people struggle to read the writing. Issues with rooms allocation for the course has

caused confusion and problems, can this be sorted out for next year please? The Geology & Physical Geology reps commented that the resources online were not updated. They noted there was some confusion over the practice essay and asked if the essay be an assessed component of the course. Can some of the tutorials involve reading and group discussions as this may be a good way to resolve some confusion. They also noted that in the first few weeks the lectures seemed to be disconnected, it is better now. Alastair Robertson responded that the course was being reviewed and that the formative essay will hopefully be credited in following years. He will look at adding more text to slides however he worries that this may affect attendance. Alastair acknowledged there had been issues with the rooms and apologised for this confusion. With regard to the point raises about tutorial Alastair said that himself and Dick Kroon had held sessions to that effect already but there was not much uptake.

Further response from CO:
The TO went through the Learn files at a relatively early stage and weeded out all earlier material so that only current material was included. The Learn folder is well organised and comprehensive as anyone can see-so I do not accept this comment (certainly after the first couple of weeks when I was back here).

Dissertation
Would like more options, similar to how the Geology & Physical Geographers have. More relevant to industry and career paths. More advice regarding the expenses associated with the dissertation would be helpful eg accommodation, any bursaries available. Linda Kirstein said that the Blue Book was being reviewed and these questions will hopefully be covered. Due to the Degree accreditation the mapping component has to be 28 days.

Response from CO:
No further comment received.

<u>Geology and Physical Geography</u>

- The reps reported that the option courses were appropriate and that there was a good variety, although they were mostly in semester 1. There were minor timetabling problems on the programme but only one day was affected so it is manageable. Would like more presentation experience. Agreed with Geology reps that they would like more Industry talks.

Dissertation
Positive feedback received from year group. The communication from Mikael Attal has been great and appreciated.

Response from DPC
Good to receive generally positive feedback from the year. MA works hard co-ordinating dissertations and it is great that this effort is particularly appreciated. If any issues arise do contact me straight away.

Environmental Geosciences

- The year rep reported that most students were satisfied with the degree this year. They felt that Fourth Year was the first time they started to do environmental geochemistry. Linda Kirstein said that more chemistry was being introduced into the Third Year so this should help with more chemistry. The main issue was felt to be that the option courses available were in semester one only and because of this if felt crowded. There are only 2 in the second semester and those students who didn't like Hydrogeology 1 felt like they were being forced to take Hydrogeology 2.

Environmental Problems and Issues
The course was liked and they enjoyed the presentations.

Response from CO
Great, thanks for the positive feedback.

Applied Environmental Geochemistry
Some students liked the course and found it useful, however some didn't like it.

Response from CO
This is hard to respond to. Glad that some like it. Not sure what others do not like but it would be useful to know more.

Dissertation
Mostly students are happy with the format though crowded semester 1 means the work clashes during this time. Some of the machines needed for analysis are broken so this is holding up the progress for some. The EG staff are aware and are trying to rectify this. Hugh Pumphrey asked the submission date would be extended for those affected if required?

Response from CO
We are working on the one instrument that has been "holding up" progress that I am aware of. An engineer is coming to fix the DOC analyzer on November 27th. However, most (possibly all) of those that are waiting for this instrument have vast amounts of other data to work up and, in fact, could successfully write up without having the DOC data. Greg Cowie students (4 of the 5 who are affected, and of 10 EG students total) are way ahead of where most have been at the same point in previous years. In short, I do not think this is a valid issue.

Oban and Literature Review
The work for Oban and Literature Review were due at same time and some students didn't focus on the review as Oban work had more credits attached to it. It was mentioned that the students missed doing fieldwork in the Fourth Year.

Response from CO
Firstly, the lit review is not worth less than the Oban report (~30 % of 40 credits is more than 10 credits). Secondly, the students have almost 3 months to work on both. The fact that the deadlines are at the same time is irrelevant. Students need to learn to manage time effectively. Checking the deadline diary would help.

Geophysics/Geophysics and Meteorology

Geomagnetism
Well taught and structured course.

Seismology
Also well taught and structured course.

Atmospheric Dynamics
Lectures are quite theoretical, good tutorials and solutions online, though would be good if there were more from the Meteorology side. More practicals would be useful. The rep commented that the lecture theatre was too dark, Hugh Pumphrey said this was probably because the staff member teaching was sensitive to fluorescent lighting.

Response from CO
Hugh's comment is correct and I've asked students if they have an issue with lighting to let me know in class at the time. No-one has ever objected.
Note also the geophysics and met students this year were not turning up to lectures.

Geophysics+ Projects
Students were mostly happy with the support they receive from their supervisor. They were worried as they have never attempted a project of this scale before. A general outline for project guidance and referencing would very useful.

The reps asked why in the new Fifth Year programme Project Design was being introduced then and not in the Fourth Year? Hugh Pumphrey explained that in the Fifth Year it was a 60 credit course and bigger scale.

Response from CO
From David Stevenson: As Hugh said, this was raised at the Fourth Year group PT meeting, and Wyn has since talked to Fourth Years about report writing. His presentation was comprehensive and covered all these points. I had given them a (much briefer) introduction at the start of S1. I will make sure Wyn's presentation is made available, just in case any students missed Wyn's meeting.

Fifth Year MPhys
It was asked if more information on the new integrated masters course could be given. Would like clarification on the actual degree itself and what the difference is between the integrated masters and a standalone MSc. Hugh is working on making more information available for semester 2. There has not been a lot of feedback from industry about the integrated masters course as yet so at this moment he can’t respond to question about the difference from standalone MSc.

Response from DPC
I have already given a fairly detailed presentation on what is in the M.EarthPhys and how it compares to a stand-alone M.Sc. I can re-circulate that information or present it again, but I am not sure what this will add. What I will do early in S2 is get potential supervisors to circulate ideas for projects --- I think that knowing the sorts of projects

available would help students to get more of a sense of what the integrated masters year might be like.

5. Fifth Year

Geology and Geology & Physical Geography MEarthSci

- Rep reported that everyone was super happy with the course. Some extra GPG based add on would be really useful eg MatLab/GIS. They don't like Pebblepad.

Project Design & Literature Analysis
Generally ok, there were different opinions on teaching styles. Lectures could be better structured, though the group accept they talk about things during the lectures so the flow is interrupted.

Iceland
The trip was great. It was expensive though and there seemed to be confusion about the costs from Teaching Office.

Projects
The projects are going fine.

Feedback and Dissertation from Fourth Year
The group had been told by Ken O'Neill that they could review exams for feedback from their Fourth Year and they asked if this could still happen. Linda Kirstein will follow this up. They asked when they could get their dissertations back, Emma Latto advised they can ask the Teaching Office for them and asked if 1-2 day notice could be given.

Response from CO
In the Research Methods course it's a fair point that most of the current facilities demonstrated relate more to the work of the geology students (although can be used by both geology and GPG). We will try to incorporate more geography-related methods in the future.

Kate will review whether there are alternatives to Pebblepad.

Project Design & Literature Analysis - This course is tutorial style - there are no formal lectures - as a result when discussions are held they move around different topics. Having said that, each session has a theme - sometimes with associated activities (editing etc).

For Iceland we will try and reduce costs for the next trip. We try hard to estimate costs in advance - but because of the late notice of people staying on for Fifth Year - much of the logisitics have to be done late in the summer - relatively soon before the trip - thus increasing costs.

Good to hear projects are going well.