

School of GeoSciences
Earth Science Student Staff Liaison Meeting

Wednesday 6 November 2013 2pm

The Museum, Grant Institute

MINUTES

Staff Present: Linda Kirstein (Chair), Godfrey Fitton, Alex Thomas, Simon Tett, Geoff Bromiley, Alastair Robertson, Kate Saunders, Bryne Ngwenya, Breandan McGaghbann, Tom Challands, Florian Fuisseis, Richard Essery, Hugh Pumphrey, Ruth Docherty, Rachel Wood, Andrew Curtis, Simon Jung, Mark Wilkinson, Matt McDonald, Simon Mudd, David Stevenson, Greg Cowie, Wynn Williams, Katie Leith (minutes)

Students present: Vinita Ganesh, Aine Anderson, David McCue, Jennifer Findlay, Amy Muir, Liam Perera, David Smith, Marcus Lancaster, Robert Smith, Rebecca Astbury, Rebecca Briedis, Helen Le Mar, Jenny Johnson

Apologies: Rebecca McDonald, Clement Hutin

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 TO webpage. Ask Katie Leith for directions to this webpage if you have any issues.

LK explained what PT group meetings were and that each Degree programme will ask students to attend 1 meeting per semester. All students are required to attend. Emma Latto is to send out programmes with activities and dates.

2. Pre-Honours

EASC08001 Earth Dynamics

- Class rep not in attendance. Another class rep who took this course reported.
- Students felt that GBs first lectures were intimidating and really fast; LK's were really clear but had a lot of content. They also felt that it might be beneficial if GF lectures came first as things were mentioned in other lectures that hadn't been discussed yet. His lectures were very clear.
- BMG's labs were straight forward and easy to follow.
- Students appreciated the feedback from the first fieldtrip which helped with the next, though some markers could have provided more feedback.
- A representative for the GeoPals group mentioned that the 1st years did not know how to set out a notebook.

- A hand out regarding this was provided at the 1st fieldtrip. Rachel Wood said they would be having a lecture in IGR next semester also. This should be considered and potentially moved to semester 1.
- No 1st year GPG students have gone to any GeoPals sessions.

Action

All first year GPG students have been emailed to notify them of the GeoPals event on November 26th.

Response from Course Organizer: *The course is under constant review and we will continue to look at both level and amount of content. Generally good to hear positive comments with regard to feedback.*

All GPG year 1 students were emailed by LK to attend final meeting.

EADV08023 Evolution of the Living Earth

- The class rep had really good feedback about SBs lectures. The students found them interesting and have high expectations for the course.
- They found Bryne Ngwenya's Chemistry lectures pretty basic and boring. They need clarification on why they are doing certain things.
- *Bryne accepts that but explained that some students needed extra help as they haven't done Chemistry since GSCE. This was good feedback for next year. Bryne also mentioned that having to mark 100 students work would not be done in 2 weeks so the deadline would now be the end of next week.*

Response from Course Organizer:

EASC08021 Geomaterials

- Class rep not in attendance.

Action: Nikki Muir to email class rep for comments

No further comments received.

EASC08011 Natural Hazards

- Class rep not in attendance.

Action: Nikki Muir to email class rep for comments

No further comments received.

METE08001 Meteorology: Atmosphere and Environment

- Class rep not in attendance.

Action: Nikki Muir to email class rep for comments

No further comments received.

3. 3rd Year

Environmental Geoscience

- The Class rep reported that they were generally happy and excited to be doing EG courses. They mentioned more EG courses should be added to 1st and 2nd year. There was a stronger Chemistry background needed before 3rd year.

- *Bryne Ngwenya mentioned that the current 1st years are now doing Chemistry which has started being introduced.*
- **Jamaica field trip** - there are a few Ecology students coming and they have already been sent some figures. The EG students have not had these.
- *Greg Cowie commented that the email was only sent out 1 hour ago and EG students would be finding out shortly.*
- **PT Group meeting** – Not had one this semester but had one last semester.

Geology and Physical Geography

- The Class rep reported that they were generally alright.
- **Sedimentology** – Given an essay to do for feedback but as they had a lot of stuff to do they were given the impression that it didn't matter. Also that PhD students were marking these when they didn't want to. Everything else was ok.
- *Alastair Robertson clarified that the course booklet had details of the precise date and information that this was going to be due. The students were given 1 week to do this and it was made very clear that it wasn't assessed and up to the student how much time they spent on it. This is an entirely new system and it's the 1st time doing this.*
- *Hugh Pumphrey explained that there was a change in the regulations and that a course must now have a formative assessment.*
- *Linda Kirstein highlighted that this was for feedback. Students would be given formative feedback and a mark but that is doesn't count towards final grade the idea being that it provided students with useful direction. Students should make the most of this for next time they have to submit work. She explained that yes staff have been given more work but it will/should benefit the students.*
- *Rachel Wood mentioned that the course team were up for suggestions on how else they could provide this feedback. Maybe a mini exam?*
- The rep reported that no one understood the beans system used in Geography. Also that a list had been sent out that had course on which were not running.
- *Linda Kirstein sent out an email when this came up this year to explain the beans system. Everyone should communicate with Linda if they are having any issues. Geography use this system to monitor course numbers. Linda followed up on the email straight away updating students on which courses were not available. Hugh Pumphrey encouraged staff to check the DRPS to avoid these situations, although it was recognised in this case that the DRPS would not be of use as it was for the following academic year.*
- **PT Group meeting** – next week

Geology

- The Class rep reported that they were generally happy.
- **Chemical Geology** – practical time could be better spent on a computer.
- *Bryne Ngwenya mentioned that some calculations were done manually to help. Other staff members mentioned that KB centre computing lab can be booked. Geoff Bromiley is re-writing this course for next year.*
- **Inchnadamph** – There was an inconsistency on how lecturers wanted maps completed.
- *Simon Harley is arranging a map to discuss.*

- **Structural Geology** – The level of maths required was highlighted. Students would like to do more in 1st and 2nd year.
- *Linda Kirstein mentioned that students will have the opportunity to do more maths next year.*

Response from CO: *The level of maths required for the course has already been dumbed down to reading and assessing simple equations as well as solving two equations with two unknowns. This is a science degree, there cannot be less maths!*

- **Mapping Project** – Next year's mapping project has been reduced to 30 credits but it's still the same workload.
- *Rachel Wood will be discussing this at the next Geology meeting.*
- **Palaeontology** was fine apart from the fish lecture.
- **PT Group meeting** – Not had one. Students feel like staff are only doing this because they have to. Last year's meeting was 1 day before there exams started.

Geophysics

- **Mathematical Methods** – Students would like more tutorial questions.
- *Hugh Pumphrey is writing these as they go and has written a dummy exam paper.*

Response from CO: *I continue to recognise the need for a longer list of tutorial questions. I have written a few more for the tutorials towards the end of the semester and have produced the dummy exam paper that I mentioned in the SSLC meeting. Marking this year's assessed exercises has given me further ideas for which parts of the course are most in need of more questions.*

- **Structural Geology** – Students felt that this was very lecture based and that there was not much time in the labs. They felt that 2.5 hour lectures were too long, even with a break. It was asked if this could be split into separate days. The rep reported that lectures were good and full of information but they had had no marks back yet. Students felt that this week's lecture was very IGR based, Geophysics students haven't done this. Very Geology based too, students have only done stereonet in Inchnadamph. The rep asked if Florian would just be using one of their practical marks for their coursework mark. The rep asked if they could have an example exam paper.
- *Hugh Pumphrey said the timetable can be looked at next year and that 3 hours was not a good way to timetable it.*
- *Florian Füsseis is happy to split it. He knows there is a weakness with practical's. There is a tutorial on Friday to go over the precise practical. Also practical answers are online. Florian will be putting more exam questions online and will also give students an example exam paper, he didn't want to give them this in the middle of the course. He will be looking at all of the practical's submitted to check they are up to standard but yes only using one for their final coursework mark.*

Response from CO & HP:

FF: *I have decided to keep the two-hour lecture block intact, but make sure that I do not overdraw. I will also intersperse the two hours with short practicals and*

exercises to loosen up the frontal lecturing. The lecture will start an hour later (Monday 10 am) and both hours will be lectured in the same lecture theatre. The one-hour practical will be moved to a day later in the week. A second hour will be added upon request from the students, which will be a tutorial run by the demonstrators. There, questions concerning the lecture or of a more general nature will be dealt with.

Marks were published immediately after the meeting, next year they will be published within 7 days.

Stereonets as well as a fundamental knowledge in working with geological maps are considered prerequisite to the practicals. These prerequisites will be communicated in week one of the semester, and appropriate “refresher” material will be provided on learn.

I followed last year’s procedure with practical marking, however, I have decided to take the average of all practicals next year.

A mock exam paper was provided to the students two weeks before the exam. Three additional tutorials were held over the second half of the class, few students turned up, most were unprepared.

There is no weakness with the practicals; they were all good and instructive. What I plan to do is to rework them, to reduce the total number to three more comprehensive practicals, which are to be worked on over three weeks each.

HP: *3-hour slots often clash with physics courses that are compulsory for geophysics students. If any such courses are able to be re-timetabled as more and shorter slots, then we may be able to make the geophysics timetable work better in general. But there are some courses (e.g. Computational modelling) which only really work as a single 3-hour slot.*

- **PT Group meeting** – This meeting is being held tonight after the SSLC meeting. Geophysics and Meteorology students didn’t receive an email. Hugh Pumphrey will look into this.

Response from Degree program convener: *Plenty of emails were circulated about event but may not have come from SSC (will check).*

Geophysics and Meteorology

- The Class rep reported feedback was fairly positive for Mathematical Methods and the 2 Physics courses. They felt that there wasn’t much Meteorology in the degree and that it was a bit more maths based.

Response from Degree program convener: *We know that there is not much meteorology in the JH year. We have ambitions to change this in the long term. In the meantime, there are several met courses to look forward to in the SH year.*

- **Measurement Techniques** – Instructions for reports were given out 1 week after doing the report. Instruction sheets were badly worded and made no sense.

One student ran over and now has 2 reports on the go at the moment. There are 5 reports due, 1 per week. They also felt there was a lack of communication from David Wright; it took 5 days to reply to one email, he replied 1 day before the report was due. David also couldn’t be found in his office.

The rep stated that the demonstrator Nick Roberts was a good help.

- Hugh Pumphrey explained that this course went badly a few years ago. Ian Main took over and it was good. There is another new person this year and it seems the wisdom has not been passed on. Comments will be passed to the Course Organiser.

Response from CO: *Instructions were given out 3 weeks before the deadline. This allowed students to attempt the practical in their own time for 1 week before seeking help at the 3 hour surgery run by Nick Roberts. There were then a further 2 weeks before the deadline and another chance to get help from Nick a week later at the next surgery session. This still left a final week to finish writing up the report. This follows the same format as last year.*

The instruction sheets are the same as have been used every year since the course started. I redrew some figures and added some photos of the equipment with more detailed descriptions to make some parts of two of the instruction sheets clearer. I agree that there are some parts of the sheets that could be clearer and will modify them for next year but I don't think they 'make no sense'.

The layout of the course was modified this year following feedback from last year that the course ran too close to the exams. For this reason the course finished earlier this year so that report writing did not clash with exam revision. A meeting with class reps from last year and this year may be the best way to decide on the best scheduling of this course for next year.

I have looked at the e-mails I have received from the class and I replied to 8 out of 9 in under 24 hours and the last one was less than 48 hours. I cannot find any e-mail that took 5 days to respond to. It is true that I was not in my office very much. In addition to working part time I was also on paternity leave for 2 days a week from October 19. I did miss one student who came to see me for which I apologised at the time. I sorted his problem by e-mail the next day.

This course is slightly unusual in that the CO has very little contact with the students apart from the lectures and feedback session (5 hrs). It is meant to be the students first taste of independent research and they are expected to do the practical themselves in their own time. The practical surgery is run by Nick Roberts, I spoke to Nick regularly about the surgery sessions and he never reported any problems or any questions he could not answer.

It was made clear to me when I took over that the CO should concentrate on marking reports and providing detailed feedback (which is very time consuming on this course) which is what I have done. The marks for the course have been very good so I am not sure exactly what has gone so badly.

- **Computational Modelling** – Students felt this was a bit demanding and you had to be computer literate. They felt that too much was expected of people. There was a lot of programming for people who have never done it before. They asked if this could be added to a 2nd year course. The rep reported that lectures were generally good but they need a bridging gap between theory, pencil and paper to Matlab. They also felt there was a lot in the 1st 3 weeks.
 - *Hugh Pumphrey is thinking about starting programming in Physics of the Earth. He feels this is a good idea and will lean on staff to do this.*
 - *Simon Tett explained that he had assumed Java had been used in second year Physics courses but realises this is no longer the case, he needs to adjust the course to reflect the change. The course is aimed to set up people confidence with Matlab. He will slow down the 1st 3 weeks next year.*

Response from Course Organizer: *There is a plan to add computing progressively to the degree program. Although Andrew Bell is CO of "Physics of the Earth" in 2013/2014 this will change back to Ian Main for 2014/2015. Computing may be introduced into this course at that time.*

If introducing Python to Physics of the Earth gets introduced in 14/15 I could take two three hour introductory sessions from Comp Modelling, modify them for PoE but use the same material in comp modelling in 14/15 (they'd be quite similar). In 15/16 there would need to be a change in Comp Modelling to drop this material as students would have seen it.

Richard Essery will start teaching Python to Earth Science students next semester, with lectures and ten 90-minute practical sessions. He is happy to share experience of how it went.

- **Helmsdale** – The rep stated that they felt it was good, interesting and that the weather was good. They thought it was a well taught course and all enjoyed it.
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Response from Course Organizer: *Good to hear field course was enjoyed. CO spent ages sorting weather.*

4. 4th Year

Environmental Geoscience

- **Jamaica** – Students would have liked a tutorial in Oban which would have been useful, on the material to be used.

Response from CO: *I think this comment may refer to the Ocean Data View software package. It is not appropriate (or possible) to give a tutorial on this in Jamaica, as only a small percentage (~1/4) of students actually use it there. Instead, I give a detailed set of instructions to the students who actually use it, and then I am present to help them with it. The whole group gets a tutorial in Oban because they all use it there, and because there is a teaching lab with a projection system.*

- **Oban** – Students thought this trip was good and well organised. The write up however was very disorganised. Greg Cowie was organising this. They felt it would have been good if he had looked over this or if they got a template. All of their reports were different due to different data. There was also a lack of information by emails. The ones they did receive they thought were unprofessional and unhelpful.

Response from CO: *The comments about the write-up of Oban reports do not accurately reflect the facts. Nor do they correspond to any comments we have received in the past. The Oban fieldtrip is brief (only 4 full working days), but requires a huge effort to organise, deliver and assess. It follows the Jamaica fieldtrip, and essentially ALL methods and data processing on the two trips are identical. So, we expect students to be pretty much fully trained with the various methods and data processing techniques in Oban.*

One of the key objectives of the course is to get students to work as a team. Most importantly, we intentionally make it the students' responsibility to cross-check their data before leaving Oban. The students receive a very extensive handout with explicit instructions, as well as comprehensive guidelines for preparing their reports. They receive repeated instructions (oral and written) that they are to fully

record all details (in the field and lab') and are expected to cross-check data sets prior to departure. I was out in the field, and could not check through all of the data while in Oban, especially without access to all of the lab notebooks. However, we also intentionally give 3.5 months prior to submittal of the reports. The main reason we make it this late, instead of during or shortly after the trip, is to give plenty of time for any issues that might arise to be sorted out. I left for fieldwork almost immediately after the Oban fieldtrip. The first I learned of problems with the data was almost a month later (in Mexico)! I was frustrated because the data clearly had not been cross-checked in Oban; the problems were due to very basic mathematical errors, and the fact that critical details had not been recorded. These details were only to be found in lab books that I did not have, and I did not know which individuals to chase. Therefore, I was unable to do anything about the errors myself and, instead, I gave a clear set of instructions to the students (by e-mail). I went through all of the spreadsheets and pointed out the specific data sets where errors were made, and I directed them to communicate with each other in order to obtain missing information and make corrections. Following this, I responded to EVERY message that I received.

Re. templates: Full understanding of field and lab' methods, and the associated data processing, are also key objectives of both the Jamaica and Oban field courses. The suggested templates would presumably mean provision of spreadsheets with built-in equations for each parameter. Not only would this be extremely difficult because of the diverse nature of the methods and variations from day to day, but it would completely defeat the purpose of the exercise. Filling in prepared spreadsheets would be nothing more than mindless box ticking. In the end, there was only a problem with a small subset of the data, and all students eventually ended up with nearly identical data sets once corrections were made. In any case, and most importantly, uncertainties over data were taken into account when the reports were marked. In fact, the students did very well as a whole this year, with an average for both fieldtrip reports in the mid to high 2/1s.

For all of these reasons, I do not understand the comments in the first place, but also do not consider them accurate, let alone fair.

- **Applied Environmental Geochemistry** – The lectures Bryne Ngwenya has given have been good so far. Greg Cowie's had no structure and students had no idea what they were expected to learn. They feel that he fires information at them which they do not understand. Hand outs are very cluttered and have no space for notes. Too much information given.

Response from GC: Applied Environmental Geochemistry is an advanced 4th-year course. I deliver 11 hours of lectures, which build directly on material introduced in 3rd year. The amount and nature of what is delivered is entirely appropriate for this level of course. A range of topics are covered, many of them delivered as case studies. As a result, some do not have a simple, linear thread as might be expected in more introductory pre-honours courses.

However, I do not accept that my lectures are unstructured or that students do not know what to study. I tell students VERY clearly at the start of the course that my lectures and handouts are a skeleton for them to learn from, and that a single exam question might cover multiple aspects across different lectures; i.e. there is no linear sequence of information to memorise and regurgitate. But the handouts

include extensive explanatory notes, and the students are also pointed to additional readings.

I also repeatedly offer to go over anything that is unclear, and do so whenever questions are asked. Finally, I also offer tutorials! I was not approached directly by any students, during or since my lectures, so I am not quite sure why this is being raised now. I do not design handouts with extra room for additional annotation as a primary concern. They are concentrated onto a minimum number of pages (to save on printing), and are "cluttered" with explanatory text (as requested by previous students). The lectures (and handouts) were available online prior to the actual lectures, so students could have printed out the actual slides and annotated them if this was really a significant issue. In short, I do not accept these criticisms.

- **Aquatic Systems** – They received 2.5 lectures from Greg Cowie but it seemed what they were meant to know was double than in other lectures, they didn't know where to start.

Response from GC: *I am not quite sure why we have received comments on this course from the 4th year class rep', when Aquatic Systems is a 3rd-year course that this group did in semester 1 a year ago.*

Last year, the class rep' for this same group had no such comments. Furthermore, the 3rd-year EG rep' this year (to whom I delivered exactly the same lectures) also had no such comments. Nor have I had such comments in the past. I actually deliver 5 hours of lectures in Aquatic Systems. It is an Honours-level course, and the quantity and level of material I deliver is appropriate. Because the course is delivered to students with a wide range of backgrounds and from different degree streams, I necessarily cover a lot of introductory material in the first 2 lectures. Much or all of this should have been remedial, especially for EG students. Also, it was clearly stated in lecture (and written on the handouts) that significant portions of the first two lectures (representing 4+ pages of the handouts) were for review purposes and would not be examined.

- **Environmental Problems and Issues** – So far so good. Lectures have been good but wanted to stress that they do not enjoy repeat lectures, this has happened a few times.

Response from GC: *It is impossible to comment on this since no details are provided. To my knowledge, there are no repeat lectures. EPI is based on suites of advanced-level lectures, each followed by seminars delivered by students. Five different staff members are involved, covering very different topics. In my own case, the first of my four lectures (on estuaries) includes a subset of material that repeats and builds on what was presented a year previously in part of one Aquatic Systems lecture. I do this to help insure everyone is on the same hymn sheet, because I have found that one cannot assume that all material delivered a year or more previously has been fully assimilated. If other lecturers repeat material, I am sure that it is for the same reason. I would point out that this course has received very positive reviews in the past, and we have never received this comment.*

- **Literature Review** – Students received an email from Bryne Ngwenya saying what he expected, supervisors were then saying this wasn't what they expected. Improved communication between EG team necessary.
- The Class rep reported that people felt like they are the last priority for different lecturers. They feel like they are forgotten about compared to research

and other things going on. They were given no information on the dissertation/proposals until approximately 4-7 days before. They received an email from Bryne Ngwenya saying that it had slipped his mind.

There is also a lack of information from the School. Students had no idea about the study room and the printing credit they were allocated. The class rep added that they were finding it difficult to distribute their time between coursework and their dissertations.

- Bryne Ngwenya stated he was standing in for Raja Ganeshram who sends his apologies. He suggested doing an ODV in Oban and integrating into lectures, it will be discussed at the EG DPRC.

Response from GC: *See reply above re ODV. I think this should say Jamaica rather than Oban.*

- **PT Group meeting** – The students had never heard of this and never been to one.
- Bryne Ngwenya mentioned that this was a lack of communication.

Geology

- **Evolution of the Modern Earth** – Lecture slides were not added to learn before the lectures. Some students like to annotate the slides. 1 or 2 lines underneath a slide would be good.

Response from CO: From my point of view this is quite OK. A trivial point is that as far as I know some EME lectures did go on Learn before the actual lectures-I recall some electronic prompts to this effect.

- **Formation and Evolution of Continents** – The Class rep reported that they thought it was good, everyone was positive about it but some of the readings are a bit dense.
- **Dissertation** – Hand in dates for this seem to be different in different booklets. Godfrey Fitton is handling this offline.
- Since the meeting the date has been set as the 14th of February at 4pm.

Response from CO: *The hand-in date has been resolved.*

Geology and Physical Geography

- The Class rep reported that the feedback was generally positive for Geography.
- **Evolution of the Modern Earth** – A few of the recommended readings were not relevant. Students felt this was too long for a 10 credit course. Dynamic Stratigraphy which was not taken by GPG students was still being reference and on Learn.
- *Alastair Robertson explained that he had referenced this in 1 lecture; he did also tell students that it wouldn't be required or examined.*
- **Dissertation** – The Class rep reported that this was going well.
- **PT Group meeting** – Their meeting was today. They felt it was a bit pointless as they can speak to their PT at any time.

Response from degree programme convenor: *The content of the EME course will be reviewed in time for next year and concerns raised wrt contact and reading hours will be examined.*

To ensure fairness in assessment the external examiner will be asked to examine scripts.

As to PT meetings it is nice to hear that GPG PTs are accessible but sometimes it is useful to see students together as a group. If you would prefer an alternative meeting please give us some suggestions.

Geophysics

- The Class rep reported that they had nothing to say and that everyone enjoyed their year. If they have any complaints they speak directly to the lecturer. Some issues with projects but they emailed the project supervisors and the issues were resolved. There lectures and fine and are on Learn.

Geophysics and Meteorology

- The Class rep reported that they do similar courses to the Geophysics students. They have no issues. Meteorology courses are merged with geophysics more which is better.

Response from degree program convenor: *While I am glad to hear that the SH year are happy, I would encourage them to alert me to any improvements which they feel can be made. We should probably get clarification on what they meant by "Meteorology courses are merged with geophysics more which is better."*