Consultative Committee for Mathematics in the Natural Sciences

DRAFT Minutes of a meeting held on Monday 9th February 2009 at 1.15 p.m., in Meeting Room 10, Centre for Mathematical Sciences, Clarkson Road

Present: Dr Ben Allanach, Dr Sue Colwell (Convenor), Dr Harvey Reall, Dr Mark Spivack, Mr Chris Bannon, Mr Frederik Floether.
Apologies: Prof Steve Gull, Dr John Mitchell, Miss Beth Howe.

1. Minutes of previous meeting and matters arising.

The minutes of the previous meeting were agreed.

2. Part IA, A course: Mr Bannon reported.
Lecture Course: Prof Haynes.

Mr Bannon had had a unanimous response from the feedback forms he had circulated to students saying that they were unhappy with the style of the handouts. The lecturer hands out a few sheets at a time, and the students would prefer more at once. He also hands them out a few lectures in advance, and students sometimes bring the wrong ones to lectures. The handouts are of the gap-fill variety, but the students have commented that the gaps are in inconsistent places. The lecturer also makes quite a few minor mistakes on the board and, although he does correct them if anyone notices, the mistakes can cause confusion later when students come to revise from their notes. Therefore they would prefer a complete handout circulated a few lectures ahead. As the complete notes are available on CamTools some students have stopped trying to copy things out and just upload the notes from CamTools when they appear.

The lecturer is audible and legible, although initially there were a few problems with people at the back. The attendance is stable and the lecture theatre (the BMS lecture theatre in Chemistry) is about half full. Some students are still arriving up to ten minutes late. There were not enough copies of the first handout to go round, and the senior members commented that the lecturer was well aware of the numbers expected to attend and wondered whether some students were taking more than one copy.

There have been two examples sheets so far, of which the first was felt to be mostly at an appropriate level of difficulty although some of the later questions were found very hard. It was pointed out that some of these had been starred, i.e. intended for those doing the B course. The students felt that the second examples sheet was late in being circulated.

The material in the lectures was thought to be at an appropriate level until the last couple of weeks, when the course has become quite hard. The lecturer has done a lot of derivations but the students feel he has not really explained how to do partial differentiation. The convenor enquired whether supervisions had helped to clarify this and Mr Bannon confirmed that, in his case at least, they had helped a bit.

The lecturer covers chunks of examples at a time, and students appreciate this.

3. Part IA, B course: Miss Howe, who was unable to attend the meeting, reported by e-mail.
Lecture Course: Professor Lister.

The lecturer is audible and legible. He hands out a few single sheets of lecture notes at the beginning of each lecture which are mostly complete but with gaps to fill in where the examples will go. The students initially found the way he was handing out the lecture notes a bit unfamiliar and hence inefficient as the notes didn't always get right the way round the hall before he started talking about them. (Note: the method of putting a few piles at the ends of rows for people to pass round is traditionally used in the Maths Tripos.) Things have settled down now as students have got used to the method.

When filling in the examples spaces the lecturer sometimes makes algebraic mistakes or writes something that's inconsistent with what he's written in the notes before or after. If people spot this at the time he will correct it but it can still be quite confusing when students look over

their notes afterwards. Sometimes they think they can not understand a point, whereas the problem is a simple algebraic slip. The students suggested that the lecturer should have the complete notes with him (which are available online) so he could check on notation etc.

Not everyone is on time to the lectures. Over half are there by 9am but there is still a steady trail of people arriving until just after 5 past, and even a few stragglers arriving after 10 past.

Sometimes the lectures have finished a couple of minutes late, which has caused people problems in getting to their next lecture, especially in the recent icy weather.

4. Part IA, Computer Techniques and Applications: *Dr King.*

Mr Bannon commented that the attendance at this course had been very poor. The lecturer had spent a large part of the lectures demonstrating the use of a computer program on the screen, but the students had found it hard to follow at the pace at which it had been presented.

The students were aware that there was an assessed exercise, but as yet they were not clear about how they would be informed about the arrangements for receiving and submitting the exercise.

5. Part IB course*:* Mr Floether reported.

Lecture course: Dr Kent.

The lecturer is audible, but legibility can be a problem. He writes on a computer tablet, and sometimes material vanishes from the screen before students have had a chance to decipher it and copy it down correctly. Some people pointed this out to him, and the situation has improved a bit. There is a fair amount of copying to do, but the students acknowledge that there are benefits as well as drawbacks to this system. The lecturer hands out notes one topic at a time. These notes are structured as complete paragraphs followed by large gaps. Sometimes the lecturer writes in the wrong gap, or inserts material where there is no gap, and so students find it hard to get a coherent set of notes. The handout is on CamTools, but is possibly not complete.

On the positive side, the students find that the lecturer's examples illustrate the material well, and are interesting as they have good physical applications. The lecturer asks for feedback, and is willing to elaborate on points.

The examples sheets are more difficult than last term's. They do match the lecture material but it is still difficult to take the lecture material and apply it. The first examples class is due to take place on Wednesday 11th February, and the lecturer has informed the students which Tripos questions he will be covering.

The attendance is stable; room A in the Arts school is not full, but nearly so.

In general the students find this term's material somewhat more challenging than last term's as the speed of introduction of new ideas is greater, and they are more abstract. The convenor enquired whether the students felt that the course was directed too much towards those doing physics. Mr Floether thought this was not the case, and commented that physicists and non-physicists found it equally difficult.

6. Any other business

In response to a query about books, the two subject reps present agreed that most students do not use books, but rely on their lecture notes.

The convenor commented that at one point lecturers had been encouraged to stop for a short break in the middle of their lectures, and to spend a few minutes on lighter but still mathematical material, and she enquired whether this was still the case. The IA A course lecturer used gaps last term, but this term's lecturer does not. The IB lecturers have not used gaps. The IB rep commented that the Physics lecturers use gaps and the students find them helpful.

Next term's meeting will take place in the second week of lectures, and will be arranged by birdcage.