

# Consultative Committee for Mathematics in the Natural Sciences

*Minutes of a meeting held on  
Thursday 14<sup>th</sup> November 2013 at 1.00 p.m.,  
in Meeting Room 1, Centre for Mathematical Sciences, Clarkson Road*

Present: Professor Ben Allanach, Dr Sue Colwell (Convenor), Dr Mark Spivack, Dr Alex Thom, Mr Josh Kellie, Mr Will Grover, Mr Cornelius Roemer.

Apologies: Dr Chris Lester, Dr Harvey Reall.

## 1. Minutes of previous meeting and matters arising.

The minutes of the previous meeting were agreed.

## 2. Part IA, A course: Mr Kellie reported.

*Lecture Course: Prof Shellard.*

Mr Kellie had received very little feedback, and interpreted this to mean that most people were happy. He himself had done Further Maths A level, so found the pace quite relaxed, but could appreciate that the coverage of some of the material was quite brief for those who were meeting it for the first time. Some of his friends had chosen to take the B course with the intention of changing down if it was too hard, but most have stuck with it.

The worked examples are at an appropriate level, but Mr Kellie could not comment on the examples sheet questions as his supervisor hadn't set him any of them, preferring to use other material.

The lecturer has handed out a booklet of notes with spaces for annotations and examples. He puts these notes up on the projector and goes through them, and he also has a summary sheet on one side of the screen. He is legible and audible (and he is testing the use of an IPad).

The attendance is quite good, but quite a few people do arrive late. The large lecture theatre in the Chemistry Labs is about half full.

## 3. Part IA, B course: Mr Grover reported.

*Lecture Course: Dr Taylor.*

The students found the pace was very fast at first, but it has settled down now, and as they themselves have settled in more they find the course more accessible. The content is mostly material they have seen before, but taken to a new level. The lecturer has gone through some examples in the lectures, but the students would appreciate it if he talked about the reasons for attacking a problem in a particular way, and which concepts from the course were being used rather than just going through the method of solution.

It was reported that some International Baccalaureate students were advised to do course A by their Colleges because of lack of knowledge of the IB syllabus. The students ask that details of the IB syllabus be put on the website for the information of DoSs. They also ask that students who have done the IB should not be put in supervision pairs with those who have done A levels. It was also reported that about five Colleges recommended that students start with course A and change up to course B if they found the A course too easy. The staff members expressed surprise at this, but said that these were matters for individual Directors of Studies, and although the Faculty could give advice, practices would vary between Colleges.

The lecturer hands out notes with gaps, but in the lectures he actually writes everything out himself. His writing is legible but some of the notation he uses is unfamiliar and he does make the occasional error. The examples sheets are good, and the basic questions are very helpful. The students ask for the worked solutions to the examples done in lectures to be available on-line.

The lecturer introduced some of his own research work to illustrate the applications of the course material. Some students found this interesting, but others felt intimidated by it.

Initially the room (Room A, Arts School) was too full, but attendance has stabilised, (although it is better on Tuesdays and Thursdays than on Saturdays) and now the room is adequate.

#### **4. Part IA, Scientific Computation:**

*Lecture Course: Prof Artacho and Dr Jardine.*

Although this course is no longer administered by DAMTP, the student representatives felt there was nowhere else for them to comment, and so the Convenor agreed to note their comments and pass them on.

There are two lectures and a practical class for each topic, and the students have found the course a bit disjointed. They also find that it is easy to lose productivity in a practical session, and they would prefer it if the lectures and practicals were more integrated. The deadlines for submission of the exercises are a bit uneven, and the students suggest that e.g. the practicals should not start until the lectures have finished.

#### **5. Part IB course:** Mr Roemer reported.

*Lecture course: Dr Latter*

The student rep noted that the lecturer was new this year. He has provided a handout with gaps and in lectures mostly reads out the notes. He does not actually write anything out in lectures, except to fill in the gaps in the notes.

The material is interesting, but the students feel they haven't had time to cover it in depth. There has been a wide range of feedback; some would like more examples because they feel overwhelmed by the material but some find the course too easy, and would like more mathematical reasoning to be presented, although they are not expecting formal proofs. The lecturer spent an entire lecture motivating pdes, and some feel the time would have been better spent actually solving them. On the other hand they felt that he went through Fourier Transforms too quickly, and that his treatment of Greens Functions was too prescriptive and focussed too much on the mechanism of solving problems rather than the implications of the mathematics. Ideally they would like him to start with the mathematics, give some idea of how complicated it can be, and then get on to specific problems.

The Examples Class was well received, and people had asked if there could be more of them. The lecturer is audible and legible, and although the attendance has decreased it is now stable.

#### **6. Any other business.**

The student reps said that they mostly used books for examples and clarification rather than as a primary source of information. The book by Boas was found particularly useful.

There was a discussion on the merits of handing out printed notes rather than expecting students to take their own notes. As usual opinions varied. The Convenor pointed out that the provision of printed notes was standard practice in the Natural Sciences Tripos and lecturers were strongly encouraged to produce them.

There was a request for hole punched lecture notes, but it was recognised that this was probably not practical.