

**Minutes of the second meeting of the
Directors of Studies in Mathematics
for 2008/2009**

**Held on Tuesday 28th April 2009 at 11.15 am
in the Old Library, Pembroke College**

Present: Nilanjana Datta (Pembroke, Chairwoman), Dennis Barden (Pembroke, Minutes), Stephen Siklos (Jesus), Richard Samworth (St John's), Matthias Dörrzapf (St John's), Orsola Rath Spivack (Lucy Cavendish), Jan Saxl (Gonville & Caius), Julius Ross (Sidney Sussex), Tadashi Tokieda (Trinity Hall), Irena Borzym (St Catherine's), Houshang Ardavan (Murray Edwards), Stuart Martin (Magdalene), Christopher Tout (Churchill), Annamaria Sinkovics (Newnham), Maciej Dunajski (Clare), Hugh Osborn (Trinity), John Lister (Trinity) Ross Lawther (Girton), Ruth Williams (Girton), Julia Gog (Queens'), Robert Hunt (Christ's), Gareth Taylor (Corpus Christi), Sophia Demoulini (Downing), Adriana Pesci (Downing), Jack Button (Selwyn), Rachel Camina (Fitzwilliam), Andraás Zsák (Peterhouse) and Simon Wadsley (Homerton). Tom Körner attended as chairman of the Faculty Board.

1. Apologies

Apologies for absence were received from the Directors of Studies of Emmanuel and Hughes Hall.

2. Minutes of the meeting held on 18th November 2008

After corrections to the list of attendees, the minutes were accepted and signed as a correct record.

3. Matters Arising

(a) Education Tripos

At the previous meeting it was proposed that candidates for the Education Tripos who intended to take Mathematics papers should be required to satisfy a STEP condition when applying for admission. This was reported to the Faculty Board of Mathematics whose chairman advised the Faculty Board of Education who agreed that a STEP condition on admission was appropriate for such students.

(b) Transcripts

It was agreed at the previous meeting that the proposed Cambridge Transcript was unsuitable for Mathematics and the Faculty Board has been asked to press for a special transcript for Mathematics. See also Item 4(d).

(c) Computational Projects

Dr Datta reported that Dr S.J.Cowley had informed her of the decision of the Computational Projects Assessors Committee (CPAC) that, in the light of the previous meeting of the Directors of Studies in Mathematics having been split 50:50 on his initial proposal for a preliminary project that would have been awarded either 5% of the total credit available for CATAM or zero marks, it was now intended to hand out a non-examinable preliminary project that students would be free to attempt and for which Directors of Studies would be free to arrange supervisions.

In the ensuing discussion there was general agreement that CPAC be asked to provide Directors of Studies with a list of recommended CATAM supervisors. It was also requested that the preliminary project be available on the web and that some guidance be offered for potential new CATAM supervisors.

4. Tripos - Parts IA, IB and II

(a) New Classification Criteria

Professor Lister explained that the new merit mark weightings, namely $30a+5b+m$ at the I/II.i borderline, $15a+5b+m$ at both the II.ii borderlines and $2a+b$ together with m at the III/ordinary borderline, were in fact arrived at as averages after a detailed analysis of weightings actually used in recent years.

Although many Directors of Studies were unaware of this, it seems that in practice examiners gave more weight to alphas than the old merit mark suggested, particularly at the I/II.i borderline, and that the weightings varied considerably from exam to exam. The new merit marks give a better approximation to the actual classification in recent years than the old one. The instructions in the schedules that examiners use the new weightings are intended to reduce the variation from one year to the next.

(b) Tripos Changes

IB Numerical Analysis will be lectured in Lent.

IB Variational Principles is being lectured in this Term and will be examined for the first time in 2010.

(c) MIT Exchange

Considerable concern was expressed by many Directors of Studies, mainly about the very variable quality and motivation of the MIT students who come here. One or two are outstanding, but several are ill-equipped for the Tripos and require much special attention even to reach a barely satisfactory standard. It was agreed that the Faculty Board should be asked to look into the problems caused by the current structure of the exchange and consider whether alternative arrangements might be possible.

(d) Transcripts

A copy of a letter to the Chairman of the Faculty Board from the Head of Student Administration and Records was tabled. In response to Professor Körner's request that the inappropriate words 'No recorded marks' be removed it was explained that these were 'subject to national requirements that govern content' with which the University is obliged to comply.

One or two colleges already produce their own transcripts and it was suggested that the Faculty might be asked to do this. Although this might fit in well with the excellent data that the faculty Office already produce it was pointed out that the necessary keeping of data from previous years could raise problems with the Data Protection Act. Professor Körner offered to reflect on this and he and Dr Hunt offered to produce a model Part II transcript for the next meeting.

Meanwhile the meeting reluctantly agreed to accept the current situation.

5. Part III

An update from Professor Körner on the introduction of the MMath and MAST degrees had been circulated. It was noted that this is almost certain to be approved by the Privy Council and therefore that it would be wise to adopt the rule that no one who wishes to take a fourth year should graduate after Part II. The few students for whom this might cause problems would have to be dealt with by their Colleges: for example those who did not graduate but then did not continue to take Part III, on account of funding or other problems, could still graduate during the Long Vacation.

6. Admissions Matters

(a) Use of the A-level A* grade

In response to the Faculty Admissions Officer's request for a discussion, roughly equal numbers of Directors of Studies expressed an intention to use the new A* grades when making offers as those who were not so intending. This was not listed in the Guide to Admissions since that came out before the university policy was announced. However all pointed out that STEP remained the most important component of any offer. STEP grades 1 and 2 was the most common offer, particularly for candidates taken from the Pool, though a number made 1 and 3 offers for appropriate candidates.

(b) Faculty Open Days

The first had taken place on 25th April and the second was due to take place on 2nd May. A program was circulated.

(c) Winter Pool

It was noted that this academic year there were 238 mathematicians in the Winter Pool of whom 15 were taken back by their college of application, 92 were made immediate offers by other colleges and 24 were re-interviewed. In response to the convener's request for feedback the following points were made.

- (i) There were too many files in the pool of candidates who were clearly not of adequate calibre and/or degree of preparation to be able to cope with the Tripos. In particular A*'s at GCSE were no longer an adequate guide.
- (ii) Our current system results in too many offers being made directly from the Pool. Re-interviews are important; could we not re-organise to allow more?
- (iii) The allocation of candidates to colleges at the end of the Pool comprises two phases the first of which, described by some as 'game playing', lasts about an hour. In a vote 2 favoured omitting this first phase and 6 voted to keep it. It was suggested that it might be modified by asking Directors of Studies to express an interest in a candidate rather than specifying whether this be to re-interview or to make an immediate offer. However, It was not clear that this would obviate the game playing or save time.

(7) STEP

(a) Easter School

This took place from 6th-9th April in the CMS and Churchill College, with 72 participants. A full report will come to the next Directors of Studies meeting.

(b) STEP examiners

A list of examiners, revisers and vettors was circulated for information.

(c) Grading

Professor Lister reported that increasing numbers were achieving 1-1 grades among those applying to Trinity. However, although the number achieving such grades was indeed increasing this was entirely due to other Universities using STEP: among those applying to Cambridge the numbers achieving 1-1 or better had remained fairly constant at around 140.

Directors of Studies were requested to think about making more post-A-level (and post-STEP) offers, since we

made fewer than did other faculties. Some candidates did take STEP and achieve good grades despite not having received an offer from a College.

Directors of Studies were concerned, not to say alarmed, to learn that, without their knowledge, STEP grades were being 'massaged' with automatic adjustments for medical conditions, bereavements etc. It was strongly felt that such allowances should be made by the interviewers and other members of the admissions committee in the relevant College. Apart from the obvious fact that such adjustments should be made on a case by case basis, there was a danger of double counting if the candidate also made a direct appeal to the College.

Directors of Studies are reminded that they are welcome to sit in on the STEP Grading Meeting, provided not too many wish to do so at once.

8. Other business

(a) Communication with the Faculty

It was agreed that a better process was required since, for example, several Directors of Studies had been unaware until very recently of what they regarded as a significant change in the weighting of 'alphas' when classing in the tripos. As a first step it was suggested that the convener of the meeting be required to read the minutes of all recent Faculty Board meetings.

(b) Emailing of tripos Results

The meeting asked the Chairman of the Faculty Board to express their concern at the problems that could arise from the University's proposal to email examination results to students and Directors of Studies 48 hours before they are posted at the Senate House.

(c) Part III Essays

It was stated that there is no assigned length for these essays.

(d) Part II Education students

The meeting was informed that these students may take certain Part IA Mathematics courses.

(e) 16 Lecture Courses

Giving these three times a week rather than two has worked well for Electromagnetism.

(f) Preliminary Courses for Freshers

The meeting was informed that the Senior Tutors Committee has agreed that these should not be permitted. Students should not be called up to College before the Wednesday before the first day of Full Term.

9. Date of next meeting

The date of the next meeting was set for Tuesday 17th November 2009, to be hosted by Downing College.

A provisional rota for hosting meetings up to 2033 was circulated.