

Minutes of the biannual meeting of the Directors of Studies in Mathematics

Held on Tuesday 15th November 2011 at 2pm. in the Latimer Room, Clare College.

Present. Maciej Dunajski (Cl, Chairman), Vicky Neale (MUE), Matthew Wingate (F) John Lister (T), Julia Gog (Q), Orsola Rath Spivack (LC), Jan Saxl (Cai), Ross Lowther (G), Dennis Barden (P), Stephen Cowley (Em) Irena Borzym (Cth), Peter O'Donnell (StE), Thomas Forster (StE), Wayne Boucher (Sid), Richard Jozsa (K), Vladimir Dokchitser (Em), Henri Johnston (Jn), Sophia Demoulini (Dow), Adriana Pesci (Dow), Simon Wadsley (H), Christopher Brookes (CC), Berry Groisman (Sid), Julius Ross (Sid), Christopher Tout (Chu), Stephen Siklos (Je), Ruth Williams (G), Robert Hunt (Chr). Also present was Stephen Cowley who attended in his role as Chairman of the Faculty Board.

1. **Apologies.** Tadashi Tokieda (TH), Stuart Martin (M), Jonathan Evans (Cai), Alexei Kovalev (F), Andras Zsak (PH), Annamaria Sinkovics (N), Jack Button (Sel), Matthias Doerrzapf (Jn), Philip Dawid (Dar).

2. **Minutes of the previous meeting.** The minutes were agreed subject to two changes: in the list of those attending, Rachel Camina (F) was also representing LC while Orsola Rath Spivack (LC) was on sabbatical leave; and in Item 4 (4e) 'notably Irena Borzym who demanded' was changed to 'notably Irena Borzym who requested'.

3. Matters arising from the minutes

- (a) Provision of supervisions and example classes for Part III.

The Directors of Studies noted the paper from Prof. Perry and Prof. Leader. The Directors of Studies would like to see the financial arrangements regulated: supervisors and/or the faculty should keep a record of those students who attended Part III classes. This should be used when the payment claims are made. It was agreed that the supervision arrangements for each course should be announced beforehand, so that the students knew what to expect when choosing courses. This feedback from the Directors of Studies has been passed onto FB, to be discussed at their next meeting.

- (b) SS apologised for not producing the STEP data relating to the performance of overseas candidates requested at the previous meeting and undertook to do better next time.

4. Tripos matters: Parts IA, IB and II

- (a) Should the Faculty offer Part IA CATAM practicals sessions at the end of Lent and the beginning of Easter (instead of the end of Easter after examinations)?

The Directors of Studies considered a paper from the CATAM Director and agreed that both options should be offered.

(b) Supervisor Exchange.

The Directors of Studies considered a paper from the Chairman of the Faculty Board proposing an electronic means whereby supervisors offering supervisions and Directors of Studies seeking supervisors could find each other. It was agreed instead that a similar service could be provided on Camtools with rather little trouble. Note: Dr Ross has since set up a website to assist matching Directors of Studies with potential supervisors.

<https://camtools.cam.ac.uk/wiki/site/4d6b38dc-2d98-428e-8d93-eea29f3caff3/home.html>

(c) Teaching Committee Report.

JS expressed concern about one of his Part IB students who had been placed just below the 2.1/2.2 border line on the order of merit list circulated to Directors of Studies; in his view, there was a clear case for this student to have been promoted to the higher class. JS was particularly concerned that the examiners had not sufficiently considered candidates close the border line. The student was in the process of making an appeal to a review panel. The Chairman of the Faculty Board explained that the order of merit list did not correspond exactly to the list used by examiners to classify students at this border line on account of the different classification criteria used at different border lines. The Directors of Studies agreed that the order of merit list should not differ significantly from that used by examiners.

The Directors of Studies noted that from this year examiners will be no longer be able to give allowances towards an Ordinary degree, and that the Faculty Board had decided that the level required to achieve a third class would be unchanged; those who in past years would have been awarded an allowance towards an Ordinary degree will fail.

5. Tripos matters: Part III

(a) Appeal procedures.

The Directors of Studies felt that the new Part III appeal procedures (which include consideration by the Part III Permission Committee and, in the case of an appeal, by a panel of three chaired by the Chairman of the Faculty Board) had worked well this year.

6. Admissions

(a) Subject moderation.

The Subject Convenor had previously circulated a spreadsheet listing all mathematics applicants. He explained that applicants who had taken AS-levels were ranked in five quintiles according to the combination of AS-level and GCSE scores that provided the best indicator for mathematicians according to the recent multivariate study of the correlations between applicant data available at interview time and Tripos results. He noted that some applicants are flagged according to six socio-economic and educational criteria, and such applicants should receive special attention. He warned Directors of Studies (a) that the correlation between AS-level marks and Tripos performance was not strong for mathematicians and (b) that some applicants may be misplaced in the table on account of strong or weak performances in AS-level subjects not of interest.

He also explained that it would be necessary for individual directors of studies to populate the spreadsheet with decisions and, in the case of applicants to be pooled, interview scores and comments as appropriate, and return the spreadsheet to the Subject Convenor before a certain date to be announced.

(b) Applications by subject.

The Directors of Studies received a table showing the number of applicants in each subject and noted that while overall numbers had increased slightly over last year's, by 2.2%, the increase in mathematics was a whopping 18.5%, which was much larger than the percentage increase in any other subject. The Chairman of the FB will write to Admissions Tutors noting the increase in the number of applicants.

(c) Deselection criteria

The Directors of Studies noted that some colleges were deselecting quite large numbers of applicants (without interview). The Directors of Studies thought it unlikely that any deselected applicants would have received an offer from another college but agreed to consider that matter further at their next meeting, when more data from this admissions round would be available.

(d) UCAS reform.

The Directors of Studies expressed their reservations about the proposed move to PQA. In particular, it was felt that far from meeting the stated UCAS aim of widening access, such a change would be damaging for our access efforts. Students would have to make the decision to prepare for STEP early anyway and the less confident students would no longer have a conditional place to spur them on.

It was felt that if the changes went ahead, mathematics would be relatively well placed, since there would be many fewer students to interview than under the existing arrangements; and SS (Coordinator for STEP) assured the Directors of Studies that STEP examining board could cope with greater number of candidates and tighter deadlines.

(e) Faculty admissions targets.

This was discussed in connection with 7a. The Chair of the Faculty Board pointed out that the Faculty's long-held target figure of 250 admissions had not been achieved in recent years and this could have serious implications. He expressed the hope that, given the significant increase in the number of applications this year, a case could be made to admissions tutors for allowing additional places for mathematicians. He noted that there had been suitably qualified applications in the Summer pool last year who had not been taken.

7. STEP

(a) STEP Coordinator's Report.

At the request of the Faculty Board, Directors of Studies discussed whether the boundaries at STEP should be lowered slightly so that the numbers of Cambridge applicants obtaining grade ones in Papers II and III was more closely aligned with the number of students admitted. The great majority of Directors of Studies felt that such a change would not be desirable: the existing arrangements left directors of studies with considerable freedom to take into account

other factors in offering places to applicants who had not attained their offer level; there was a danger that some colleges might be tempted to make even higher offers if there was 'grade inflation'; and altering the boundaries would not help to achieve our admissions target.

8. Other matters

- (a) Teaching and Learning Review.

This will be discussed in May 2012 when the Reviewers' report becomes available.

- (b) Affiliated students.

SS pointed out that it was no longer possible to offer affiliated students a place to take Part II and Part III of the Tripos, since they may not meet the Faculty's admission condition for Part III. This was not regarded as a problem, as there are few affiliated students in mathematics and those that there are tend to take lower parts of the Tripos.

- (c) MIT exchange.

SS asked whether Directors of Studies would be willing to re-open the MIT exchange scheme now that it seems that external funding will be available. He believes that we could obtain assurances from MIT of a more rigorous selection process which would include raising the issue with MIT students long before the exchange would begin so that they could choose courses (and arrange their HASS) appropriately. Some Directors of Studies would only be happy to accept students from MIT on the reciprocal basis. The Directors of Studies did not otherwise object to the proposal.

SS has agreed to find out whether Cambridge students willing to go to MIT could go to undertake summer research placement.

- (d) Part II and Part III astrophysics.

Directors of Studies received a paper from Dr Tout pointing out the benefits for mathematicians of changing Tripos to Astrophysics Part II or Part III.

9. Any other business

SC informed the Directors of Studies about a request from the University to make a film about Cambridge Mathematics for recruitment and sought help in identifying suitably photogenic students and staff.

10. **Date of next meeting:** Tuesday 8th May 2012, 11am, Latimer Room, Clare College.