

## GENERAL BOARD OF THE FACULTIES

### COMMITTEE OF MANAGEMENT FOR THE NATURAL SCIENCES TRIPOS

Minutes of a meeting of the Committee of Management for the Natural Sciences Tripos that was held at **2:15 pm on Tuesday 22 October 2002** in the Meeting Room of The Old Schools.

Present: Dr J Keeler (Chairman), Dr W Allison, Professor TW Clyne, Dr A Findlay, Dr J Forrester, Professor J Gray, Dr S Hand, Dr K Johnstone, Dr J Miller, Mr T Mach, Dr J Riley, Dr B Shachar-Hill and Dr M Russell (Secretary).

Apologies: Mr Z Chang, Dr I Wilson, Dr N Woodcock and Dr MG Worster.

#### **99. MEMBERSHIP OF THE COMMITTEE AND TERMS OF REFERENCE**

A current list of members and the Committee's terms of reference were circulated (**CM.154**). It was noted that Dr Hand had returned to the Committee from his sabbatical leave. Dr Allison is a new member of the Committee under category (a), in his capacity as a representative of the Faculty Board of Physics and Chemistry. Dr Johnstone is a new member of the Committee under category (a), in his capacity as a representative of the Faculty Board of Biology. Professor Clyne is a new member, co-opted by the Committee to represent the teaching programmes of the Department of Materials Science and Metallurgy, to serve until December 2003.

#### **100. MINUTES**

The minutes of the meeting held on 7 May 2002 had been approved by circulation. A paper of other business agreed by circulation was received (**CM.137**).

#### **101. MATTERS ARISING**

##### **i. Annual Report 2001-2002** (item 3 of paper **CM.137**)

The Committee approved the final draft of the Annual Report for 2001-2002 (**CM.135**), to be submitted to the Strategic Committee, the General Board and the appropriate Faculty Boards and other authorities of the Tripos.

##### **ii. Information for Directors of Studies** (item 4 of paper **CM.137**)

The Strategic Committee had asked the Committee to consider whether it would be appropriate to supply College Directors of Studies with a "pack" of information for students taking the Tripos. The Secretary requested Directors of Studies Committees to comment on this proposal but had received no replies. A pack, compiled for Directors of Studies in Computer Science was received (**CM.138**).

The Committee noted that a pack similar to the Computer Sciences pack would not be appropriate for a Tripos as complex as the Natural Sciences Tripos and that the website should be used as a primary source of information and communication for both students and Directors of Studies alike. It was further noted that there were difficulties in communicating with Directors of Studies across the Tripos due to the complexity and variation of arrangements in the Colleges. **The Committee agreed that the Secretary should set up a voluntary e-mail list for Directors of Studies to subscribe to so that they could be made aware of updates to the website and other news that needed to be disseminated rapidly.**

The Secretary reported that he was intending to revise the website shortly and would include references to the programme specification for the Tripos and the new on-line reporting system (CamCORS).

**iii. Part IA Elementary Mathematics for Biologists** (minutes 15iii, 35iii, 43ii, 51)

The Committee received minutes of a meeting of the Committee of Management for Part IA Elementary Mathematics for Biologists (**CM.139**), in accordance with the Committee's request to continue monitoring this course. The Committee noted the concerns over the prospect of cheating on the assessed exercises and the appropriate response of the EMB Management Committee. **The Committee agreed to request to continue receiving minutes for the time being.**

**102. ALLOCATION OF STUDENTS TO PART II SUBJECTS** (minutes 35i)

The Committee received reports from Dr Waldram, who chaired the interdepartmental allocations meeting, and Jenny Hicks, who provided administrative support in Student Records, emails from some individual Directors of Studies and an email received from the Chairman of the Directors of Biological Sciences Committee (**CM.140**) and tables of data indicating the number of places and relative popularity of subjects (**CM.141**).

The Committee discussed the difficulties in allocating students to subjects according to a prescribed "number of places" and how best to approach the authentication and allocations accordingly. There were concerns that by taking more students than Departments had indicated they were able to, it might be compromising the educational standards of individual courses. It was also recognised, however, that Departments were encouraged to try and take more students on to their "first choice" course and that two issues were in opposition. Departments should be encouraged to be realistic about the numbers of students they are able to take (rather than would wish to take).

After further discussion of the reports and emails, **the Committee agreed to the following points and principles:**

- no Department should be able to not accept a student, except on grounds that there were no places available; the academic strength of the student is not an acceptable reason to not be accepted onto a course.
- the same procedure for allocations would be adopted for this year, except that the preferences would revert to a first-second-third choice system.
- the Secretary would liaise with the staff of Student Records to ensure that the administrative burden did not interfere with their other duties.
- the Strategic Committee should be reminded that the underlying problem of a lack of places needed to be urgently addressed. It was further noted that there was a general expectation that students would have undertaken a research project of some form in the final year of their degree.
- the numbers of places indicated by Departments should be scrutinised for their accuracy, but the allocations system should be flexible to a degree in its approach in enforcing these limits.
- it would be helpful (but not necessary) if students could put down at least one choice in a subject or course where there were generally places available.
- the time between the first round of allocation and the interdepartmental meeting should be decreased as much as practicable.

As a related issue, the Committee noted that Part II Astrophysics introduced a restricted number of places this year and received an email, dated 10 October 2002, from the course organiser (CM.142). **The Committee agreed that the Institute should continue to admit students to the three- and four- year courses in a separate “allocations procedure” but that the Institute and the Faculty Board of Physics and Chemistry should be encouraged to provide more accurate and realistic criteria for entry to the courses.**

### 103. TRIPOS EXAMINATIONS 2002

#### i. Amendments to class list

The Committee received a copy of a Notice in the *Reporter* (2 October 2002, p 27) regarding an amendment to the class list for Part II Experimental and Theoretical Physics (CM.143). The Chairman of Examiners reported that this was due to remarking of one question after an appeal was made.

#### ii. Reports of Examiners

##### a) Part IA

The Committee received Dr Shachar-Hill's report in her capacity as Chairman of Examiners in Part IA in 2002 (CM.144).

It noted that some Examiners had questioned the need to adhere to the classing and marking guidelines which had been in operation, in one form or another, for many years and **agreed that the current marking scheme (subject to revisions – see minute 103iic) was appropriate and that it was in the powers of the Committee to enforce it.**

The Committee also noted that the abolition of classing for Part IA had been proposed but noted it served a useful function in ensuring the Tripos was seen as a cohesive examination. **It agreed, however, to refer the issue of the relevance of classing to the Strategic Committee.**

The use and relevance of the *m* qualifier on the class list (to indicate whether students could proceed to read NST Part IB Mathematics) was discussed in terms of its current and historical usage and the role of College Directors of Studies in advising students. **The Committee agreed to defer discussion on whether to retain the qualifier until the views of the Faculty Board of Mathematics and the Department of Physics were known.**

##### b) Parts IB, II, II (General) and III

The Committee received Dr Miller's report in his capacity as Chairman of Examiners in Parts IB, II, II (General) and III in 2002 (CM.145). It reiterated the requirements of Examiners in Part IB and Part II (General) to follow the prescribed marking schemes.

The Committee also noted that problems in the Part II and Part III College markbooks this year had caused confusion and **agreed that Senior Examiners should be given advice from the Chairman on what should be included.**

Further difficulties had been caused in processing the marks of MIT students who were taking Tripos courses as part of the CMI undergraduate exchange programme. The Chairman reported that he had not easily been able to obtain a list of candidates and which examinations they had been entered for. **The Committee agreed to request that the CMI office should routinely provide to the Chairman of Examiners a list of candidates, their College and their examination entries in good time.**

c) **Reports of External Examiners for the Tripos**

The Committee received a paper, summarising comments made by External Examiners, which related to Tripos-wide issues (CM.146) and noted that a recurring theme was that the NST was out of step in relation to other institutions in the class boundaries it used. **The Committee agreed that, for all Parts of the Tripos, the class boundaries should be revised, from this year's examinations, such that:**

<b>1<sup>st</sup> class</b>	<b>70-100%</b>
<b>II.1 class</b>	<b>60-70%</b>
<b>II.2 class</b>	<b>50-60%</b>
<b>III class</b>	<b>40-50%</b>

**104. TRIPOS EXAMINATIONS 2003**

i. **The use of External Examiners in Parts IA and IB of the NST**

The Committee noted that the General Board's Education Committee had recently advised that Boards of Examiners for examinations in all Part IB, II and III of all Triposes should include an External Examiner; it further agreed that Part IA examinations would be exempt from this consideration. A paper summarising the current use of External Examiners for the Tripos was received (CM.147), which indicated that the use of External Examiners in Part IA and Part IB of the Tripos was patchy and driven mainly by the use of some biological subjects for exemption from the Second M.B. examination, or by requirements for external quality audits.

Members of the Committee held strong views on whether or not External Examiners should be used for all subjects in the first two years of the Tripos but the majority (10-2-0) were against their introduction. Although it was argued that External Examiners generally had a very useful role to play in providing an external opinion and standard, the Committee concurred that, given the rigid and complex marking schemes (which were almost completely norm-referenced), it was difficult to see how External Examiners could contribute to the assessment of candidates. By and large, the marking schemes would be rendered ineffective if changed by even a small degree. Members of the Committee pointed to the very low dropout rates at Part II as an indication that the courses were robust. They also expressed the view that External Examiners would find any ring-fenced role (for individual subjects or for the examination as a whole) to be ineffective and that External Examiners for an individual subject may make comments based on an incomplete understanding of the structure of the Tripos as a whole. It was also noted that when asked to perform similar duties for comparable courses elsewhere, members of the Committee had felt unable to contribute effectively.

It was noted, however, that NST Part IB History and Philosophy of Science and some biological courses had used External Examiners and had considered points raised by them which related to that individual course and that it would not advise individual subjects not to employ External Examiners if they so wished.

**The Committee agreed to relay their concerns to the Education Committee, indicating clearly that it would be difficult to determine a useful role for an External Examiner for Part IB of the Tripos.**

**ii. Changes to regulations**

**a) Part II (General) Special Subject Chemistry**

The Committee approved, for their part, a Notice for changes to the examination in Part II (General) Special Subject Chemistry (**CM.148**), which changes the form of the written examination from two papers of three hours each to three papers of one and a half hours each, in line with recent practice.

**b) Part II Anatomy B**

The Committee received a letter, dated 7 October 2002, from the Secretary to the Faculty Board of Biology, regarding a change of name for the Anatomy B course from “Disease, Society and Sexuality” to “Anatomy B – Health and Disease: Integrating Science and Skills” (**CM.149**) and approved the necessary minor amendment to the supplementary regulations.

**iii. Marking schemes for Parts IA, IB and II (General) of the NST**

At their meeting on 7 May 2002, the Committee agreed to post the examination marking schemes for Parts IA, IB and II (General) of the Tripos on the web site. The University has also recently approved a regulation which allows the Committee to issue to Examiners the marking scheme to use in the above examinations (The Committee further agreed to devolved these powers to Faculty Boards for examinations in Part II and Part III.) The Committee now received a copy of the proposed marking schemes for examinations in 2002-2003 (**CM.150**) and approved them, subject to amendments outlined in minute 103iic above.

**105. TEACHING OUTSIDE OF FULL TERM**

The Committee received part of an email on behalf of the Teaching Committee of the Department of Physics (**CM.151**) regarding concerns that a number of courses were teaching students outside the weeks normally allocated (*i.e.* Thursday week 1 – Wednesday week 8). **The Committee agreed to defer this until the next meeting and asked the Secretary to compile a list of such lectures for Parts IA and IB of the Tripos to indicate the extent of this practice.**

**106. NATURAL SCIENCES TRIPOS LEARNING DAY 2001**

The Committee received a paper, prepared by the Secretary, summarising feedback from this year’s Learning Day (**CM.153**) and noted that it continued to be generally welcomed by students. Nevertheless, in the light of the comments, **the Committee agreed to make the event shorter next year and to endeavour to avoid repetition of material between speakers.**

**107. DATE OF NEXT MEETING**

The next meeting shall take place at **2:15 pm on 19 November 2002** in the Meeting Room of the Board of Graduate Studies. The Committee noted that future meetings would normally be held at this new venue.