

COMMITTEE OF MANAGEMENT FOR THE NATURAL SCIENCES TRIPOS

Unconfirmed minutes of a meeting of the Committee of Management for the Natural Sciences Tripos held at **2:00 pm on Tuesday 13th October 2009** in **Greaves Room, Pathology, Tennis Court Road.**

Present: Dr N Holmes (Chairman), Professor T W Clyne, Dr P Duffett-Smith, Dr M Fiore, Dr S Fulton, Professor H Griffiths, Professor R Horgan, Dr J Keeler, Dr R Padman, Professor S Redfern, Dr S Russell, Professor D Ritchie, Dr C Schwiening, Professor J Secord, Mr A Norman, Miss S Zhang and Mrs E Oliver (Secretary).

Apologies: Dr P Barrie, Dr M Mason.

492) MEMBERSHIP OF THE COMMITTEE (CM.564)

New members of the Committee were welcomed and introduced. It was proposed that Dr Nick Holmes remain as Chairman. This proposal was seconded and Dr Holmes agreed to continue in this role.

493) MINUTES

The minutes of the meeting held on Tuesday 9th June were approved.

494) MATTERS ARISING NOT ELSEWHERE ON THE AGENDA

A summary sheet of action points and matters arising was circulated (**CM.565**) and it was noted that the Head of Student Administration and Records had been informed that the Committee had agreed the proposal for amending the process of publishing class lists to students from 2010 onwards.

The question of additional support for the examination process, raised by the Chairman of the Examiners for Part IA, had been referred by Dr Padman and Dr Russell to the School of Physical Sciences and the School of Biological Sciences respectively.

Dr Russell reported that Biological Sciences were unlikely to provide any financing as an open-ended request for money was out of the question. The School had also received a request to review support for the NST from the Old Schools and would be meeting with representatives from Physical Sciences to discuss this. Biological Sciences already supported the MVST which involved complex spreadsheets and it was felt that more information was needed on the request for support from a computer officer for NST.

Dr Padman reported that Physical Sciences were thinking about NST support and recognised that there was an obligation to provide administrative support for the NST given that student FTE's were received by the School. It was understood that the Education Section currently provided a level of support for the NST which was not provided for other Triposes.

Both Schools are considering and will report back.

495) **REPORTED AND STRAIGHTFORWARD**

A paper of reported business was circulated (**CM.566**).

i. School of the Physical Sciences Education Committee

The minutes of the first meeting of the Committee held on 10th March 2009 were noted. (**CM.567**)

ii. Faculty of Biology arrangements for supervisions in EMB and Mathematical Biology

The Faculty of Biology had set up a programme to generate a pool of mathematically competent graduate students and post-docs in biological and medical sciences who have been trained in the art of teaching maths to first year biological science undergraduates. This is intended to expand the pool of existing supervisors already known to Colleges. An email which was circulated to Directors of Studies and Senior Tutors was presented for information. (**CM.568**)

iii. NST website and Course Costs 2009-10

The NST website has recently been updated, with the exception of the pages referring to Examinations and the Part II subject allocation procedure. A copy of the page which details additional course costs was circulated for information. (**CM.569**)

iv. Notices: Part III Entry Requirements

An updated notice was circulated (**CM.570**) which defined the standards required for entry to each subject at Part III and included the new Part III courses in History and Philosophy of Science and Systems Biology. This will shortly be published in the Reporter and it is proposed that a link is created to this document from the Part III webpage <http://www.cam.ac.uk/about/natscitripops/ps/structure/part3.html>

It had been noted that in the sections covering consideration of special circumstances, some subjects referred to requests from Directors of Studies and others to Tutors. It was agreed that, for consistency, each entry should refer to 'Director of Studies or Tutor'.

Action: Secretary to amend notice prior to publication.

v. Notices: Part III Experimental & Theoretical Physics

A notice was circulated (**CM.571**) which included a change in the length of Major Option papers from 1.5 hours to 2 hours and the removal of one Major Option paper. This notice which had been approved by the Faculty Board of Physics and Chemistry will be forwarded for publication in the Reporter.

vi. NST as a pilot for electronic resource

It was reported that a project involving Arcadia and the University Library was underway which was intended to provide a resource for examination papers in electronic form which would be available to staff and students. It was planned that this would run as a pilot for NST before being made more widely available. The Chairman explained that this was intended to replace the paper version currently held in libraries. Dr Padman reported that Physics already had such a resource and it was reported that some departments made use of CamTools for the same purpose. There was some concern about possible duplication in certain areas and whether the information would be Raven protected. It was agreed that a central site with easy access for all was a laudable objective.

vii. Bologna Process and Master's provision

A letter and briefing paper from the Deputy Academic Secretary on the Bologna process and Master's provision was circulated **(CM.572)**. The Committee was asked to note paragraph 12 which specifically referred to the Integrated Master's. As mentioned in the letter, the Education Committee would welcome the views of academics who had recent experience of other Master's systems.

viii. Education with Mathematical Sciences

On behalf of the Committee, the Chairman had approved the request from the Faculty of Education that Part II Education with Mathematical Sciences students be permitted to offer Natural Sciences Part IB Mathematics. This approval followed consultation with the Course Organiser and the School of Physical Sciences.

ix. Students taking Examinations in College

Following the concern raised by NST Committee at its meeting on 25th November 2008 the Senior Tutors Standing Committee on Education had considered a response from the Board of Examinations at its meeting on 22nd May 2009. An extract from the minute had been circulated.

The Committee felt that the issue had not been completely addressed. It accepted that students who were allowed extra time needed to be catered for, but wondered if the availability of additional rooms could reduce the pressure on colleges. It was felt that the process whereby colleges forwarded scripts to the Board of Examinations who in turn forwarded them to Departments was unnecessarily protracted. It was also felt that the numbers of students taking examinations in colleges could be decreased if the deadline could be extended by which colleges needed to notify the Board of Examinations of any students with special circumstances. It was agreed that this request should be put to the Board of Examinations.

Action: Secretary to write to the Board of Examinations.

x. Amendments to Class Lists and Allowances for Examinations

Attention was drawn to the extract from Notices published in the Reporters of 8th and 23rd July, 5th August and 7th October 2009. **(CM.573)**

xi. Departmental supervision norms

The paper on departmental supervision norms had been circulated to the Senior Tutors' Standing Committee on Education on 19th June 2009 who had thanked the Committee of Management for its provision. An extract from the minutes had been circulated.

496) **REPORT FROM THE WORKING GROUP ON CLASSING IN PART IB**

Following discussions at the Committee meeting on 3rd March 2009 it was agreed that a working group would be set up to discuss Classing in Part IB of the NST. The report of the group had been circulated for comment. **(CM.574)** The Chairman summarised the background to the report and the findings of the working group. The data that had been presented by Professor Ward and Dr Padman did seem to indicate that there was a difference in results at IB and IA for the same cohort. The group had not however been unanimous in its opinion that IA performance was an accurate prediction for performance in IB. Further modelling had taken place and other possibilities considered, such as the fixing of boundaries to correspond with agreed mark levels, thereby allowing the percentage of classes to vary. Whilst this would increase the percentage of students achieving 1st and 2.1s it would not be outside the norms for other Triposes. The working group considered it was unacceptable to use a

system which would disadvantage other subjects, particularly those with a small cohort.

The recommendations, in summary, allow for some added flexibility and consideration of IA data in association with IB performance when appropriate. The recommended process is that Senior Examiners for IB will look initially at the IB performance of the cohort taking into consideration the rule of 60% 1st and 2.1s. Some variation from this target percentage would be permissible. Where raw marks fall outside of this variation, the performance of the same cohort of candidates in their previous Tripos exam would be consulted.

In arriving at this recommendation the group have been concerned that the purpose of the NST should not be lost, in that it encouraged students to try out different subjects and that students should neither be disadvantaged nor should they receive more marks than were appropriate. Some flexibility was therefore of value.

Physics felt that the recommendations would solve their problem of finding it difficult to define the quality of a student, which impacts on Part II and Part III. Chemistry for whom the issue was less extreme, felt that the proposals were a useful way forward.

The Committee accepted the recommendations of the working group.

It was agreed that the NST Guidelines would need revising and a flow chart considered. Dr Schwiening as the current Chairman of IB Examiners would be happy to implement the new scheme once clear guidelines had been established. Dr Holmes agreed that he would be happy to attend the first meeting of the Examiners if that would be helpful.

It was suggested that now a new IB scheme had been agreed, further consideration should be given to whether IA classing should be reviewed and whether the reduced loading for Maths papers remained appropriate in Part IA.

497) **REPORT FROM THE WORKING GROUP ON SCIENTIFIC COMPUTING**

Following discussions at the Committee meeting on 3rd March 2009 a working group had been set up to discuss Scientific Computing in NST. The report of the group was circulated for comment. **(CM.575)** As Professor Mycroft, who had chaired the Working Group, was now on sabbatical, Dr Padman summarised the current situation, the aims of the group, and the content of the report. It was recognised that there was a need to update the current course by moving away from Excel and the focus on numerical methods towards mathematics for real science. The course was currently delivered by the Computer Laboratory who now had less excess teaching capacity than previously and it was therefore likely that future delivery would come from within the NST departments, probably the physical sciences. Recommendations had been made with regard to course material, management and the syllabus but some aspects needed to be more precisely defined.

Professor Horgan drew attention to the fact that that the Department of Mathematics (DAMTP) currently had oversight of this component and that the mark was included in the IA Mathematics mark. A decision was needed as to whether these arrangements should continue in which case the assessment would be an issue for the Syllabus Committee. The existing assessment component was particularly labour intensive given the marks available and some form of electronic assessment was under consideration.

It was suggested that a separate Course Management Committee could be set up for this component which would report directly to NST Management Committee and that delivery of the component could rotate between departments. FTEs were available for this course. It was possible that an interdisciplinary approach would also mean that the component could be of interest to Part IA Mathematical Biology.

It was clear that certain aspects needed further discussion and it was suggested that a final proposal be brought to the next meeting of the Committee.

Action: Dr Padman to liaise with working group members to enable a final proposal to be presented at the November meeting.

498) **DEPARTMENTAL LINKS WITH DIRECTORS OF STUDIES**

The Undergraduate Admissions Committee meeting held on 29th June discussed the intake to Part IA of the Natural Sciences Tripos and the capacity of practical laboratories. This followed a submission from Physical Sciences following discussion at the NST Management Committee. An extract from the unconfirmed Minutes was circulated (**CM.576**) and the Committee was asked to note the contents and comment on the final paragraph. This drew attention to the variable extent and quality of departmental links with Directors of Studies within the Natural Sciences Tripos and suggested that this might be raised as a broader issue for discussion by the Management Committee.

From discussion it was apparent that Schools had different methods of communicating with Directors of Studies, including school-level committees and departmental-level arrangements. It was felt that these arrangements were not exclusive to the Admissions process and were outside of the remit of the Management Committee.

499) **CARET: COURSE TOOLS**

A progress report was circulated (**CM.577**) which detailed the outcome of consultations with academic and administrative staff and student representatives. The Chairman summarised the contents and the Committee noted the progress since the last report and the development of five areas of interest as a focus for future work. The first phase which, would cover a repository of course information and lecture list, was welcomed, particularly as a resource for addressing timetabling which would be the subject of the second phase. The Committee had been asked to take part in the formal governance of the project by nominating a member or members to a Steering Committee which would ensure the accountable running of the project. Volunteers were requested. Suggestions were discussed and members were asked to contact the Chairman with names.

Action: Committee members to forward suggestions to the Chairman.

500) **SATURDAY EXAMINATIONS**

The Board of Examinations had been asked by the Students' Union to look at the examination timetable to see if the timetabling of examinations on Saturdays could be avoided. A report (**CM.578**) was circulated for consultation and a response requested in time for the next meeting of the Board of Examinations on 8th December. The Committee discussed the contents of the document. It was felt that the reason for requesting that Saturday examinations be eliminated was not cogently argued and that the proposal did not take all relevant issues into consideration. It was clearly not feasible for Part IB to avoid examinations on Saturday as examinations could not commence any earlier and delaying the Final Examiners' Meeting would cause major

disruption in the Part II allocation process. Accommodation constraints were also felt to be a factor for consideration. If timetabling of examinations was to be reviewed there may be other matters worthy of consideration such as improved spacing of examinations to avoid two exams in one day. The student view was sought and it was felt that timetabling of examinations on Saturday was less of an issue than improving the spacing of examinations to avoid two on one day.

Action: Secretary to respond to the Board of Examinations with the Committee's comments.

501) **ANY OTHER BUSINESS**

The Chairman noted that Professor Ron Horgan who was a co-opted member of the Committee representing Mathematics under section (e) was due to complete his term of office in December 2009, and proposed a 12 month extension. This was agreed and Professor Horgan accepted the proposal.

Miss Sophia Zhang, Junior Member, had raised the issue of feedback on examination performance in an email to the Secretary. Students felt that additional guidance would be helpful on how to approach a question and what examiners expected to find in an answer. Some subjects within the Tripos provided better feedback than others; sometimes this was compiled for course management reasons, and discussions were taking place regarding publishing Senior Examiners reports internally. It was recognised that it was good practice to publish as much information as possible.

The final meeting of the Management Committee fell within the examination marking period and it had been suggested that this could move to later in June or early July. Discussion took place and it was agreed to move the final meeting from 8th June to 29th June in 2010.

Action: Secretary to make necessary changes and notify members.

502) **DATE OF NEXT MEETING**

The next meeting shall take place at **2:00 pm on Tuesday 24th November 2009** in the Seminar Room, 1st Floor, Department of Pathology, Tennis Court Road.