

Oxford University Department of Materials Academic Committee

DMAC 51 Minutes of the Academic Committee held at 2.00 pm on Monday 2nd March 2009 in the Wolfson Meeting Room.

Present: AOT (Chair), JTC, JaMS, RIT, CRMG, DJHC, PDN from item 6.

In attendance: ICS (Secretary), Dave Hutton (Schools Liaison Officer) (Items 1-6).

1. Apologies

Apologies for absence were received from MRC.

2. Minutes of DMAC 50 (DMAC 51/1)

The minutes of DMAC 50 were accepted.

3. Shortened Minutes

There were no confidential items to be removed from the minutes to be published on the Department of Materials website.

4. Matters Arising

*From DMAC 50

***Minute 7 Student Surveys** The Chairman commented that there had been a good response rate (17 of 25 possible) to the NS Survey of final year undergraduates and noted the good score for overall satisfaction with our programmes. He then summarised the key items of concern (NSS questions 5, 7-10, 15, 19 & 20), noting that earlier in the meeting the Committee had received from the Chair of JCCU helpful comments on the issue of feedback, and proposed that we should explore in more detail what specific aspects of these areas of concern were leading to the relatively poor opinions. After some discussion of the survey results, to this end DMAC agreed that the DoS should set up a student focus group. It was noted that the very poor response rate by Materials students to the OSCEQ survey meant it was of no value to us.

Action: AOT/ICS

***Item 10 Proposed Revision to 3rd Year Option Scheme** During the discussion of this item it was decided that if the revised scheme were adopted it would be timely to review our provision under the following courses: Semiconductor Devices, Optoelectronics, Electroceramics, Materials for Nanoscale Information Storage and Functional Nanomaterials. Together these comprise 36h of lectures and DMAC considered that some rationalisation might lead to a leaner, 24h variation. This would release 12h of teaching time which might, for example, be assigned to a new 3rd year option on 'Energy Materials' (likely to include a significant nuclear component). A working party chaired by Jason Smith and comprising all the lecturers who give the abovementioned courses will be set up once Faculty's decision on the revised options scheme is known.

Action: JaMS/ICS

At its HT09 meeting Faculty approved the principle of the revised options scheme.

Item 12 Word Limit on Part II Theses The Chairman of FHS Examiners for 2007/08 had suggested that DMAC revisit the question of whether we should reduce the word limit for the Part II theses. At its MT08 meeting DMAC declined to revisit this issue since it had only recently discussed it extensively: a discussion which led to the introduction in 2007/08 of a 120 page limit in addition to the 15,000 word limit and to the sharing of the Part II External Examiner role by both of our External Examiners. However Faculty at its MT08 meeting

requested DMAC to reconsider this matter. There was detailed discussion of the accompanying paper that had been written by ICS in his capacity of Part II Organiser. Attention focussed in particular on the data in the graph of page count versus mark awarded, which showed that the introduction of a page limit had not impacted on the distribution of marks and that although the page counts were quite variable the highest was 104, rather than pushing to the limit of 120 pages. The Committee requested that a similar plot be compiled to show the distribution of the word count before and after the introduction of the page limit and that both plots be provided to Faculty at its HT meeting. DMAC resolved to recommend to Faculty that the page limit be reduced to 100 and, subject to the distribution revealed by the word count plot, the word limit to 12,000. Action Completed (ICS/AOT)

Faculty has endorsed the recommendation. DMAC endorsed the joint recommendation of the Chairmen of Faculty and DMAC that the change be brought in for those MS students who embark on the FHS in October 2009.

[Secretary's Note following DMAC 51: The regulation change has been approved by Division, published in the 'Gazette', and is expected to be published in the 2009 'Grey Book'.]

***From DMAC 49**

*** Minute 4 Report from the Chair of JCCU (HB) –**

i) Team Design Project Scheduling JCCU was concerned that, due to concurrent commitments in Economics and Management, MEM students were disadvantaged by the timing of the Team Design Projects, even with the expected input of 75 hours reduced from 100 hours for the MS students. JCCU enquired whether the TDPs could be swapped with the Option Modules in HT. DMAC considered that the training load on the SEMs was too high at the beginning of MT to allow for these modules to be done then. DMAC agreed to investigate further with the Economics and Management faculties to determine amount of work being set so the total workload could be considered. It was discussed that it may be possible to reduce the contribution of MEM students to 50% and reduce marks proportionately but there were concerns about further reducing the Materials content in the programme.

Action: AOT/PJM/ICS

[Secretary's Note following DMAC 51: There is a total of 14 hours of core timetabled lectures during the first two weeks of MT, comprising 6 hours of basic non-examined material introducing the E(M)EM programme, and 8 hours of examined lecture material (4 h Intro to Management) and 4 h Microeconomics. Intro to Management has only two associated tutorials for the entire term. Microeconomics has 8 tutorials/classes for the entire term, some of which are routinely carried over into HT. Both the Department of Economics and the Said Business School have signalled that they are happy for no tutorials to be held during the first two weeks of MT. Action completed (AOT/PJM/ICS).

Helen Boffey has not yet met with AOT, but has provided an interim report of feedback to JCCU. Further discussions between HB and AOT will take place.]

ii) Foreign Language Provision The Department currently funds a language option for MS students; a foundation course is studied in the first year with an assessed course continuing in the second year in place of the Business Plan. A further voluntary course is offered in the fourth year. JCCU reported that all 1st years would like the option to take a language course. DMAC considered that all 1st years should be allowed to take the language option, for which the Department would pay. However, DMAC felt it would not be sensible for 2nd year MEM students to take an additional language course, given the already heavy workload. The entry in the handbook will be revised to reflect this.

Action: PJM

[Secretary's Note following DMAC 49: DC has approved this suggestion, including the evening classes for those students whose timetable commitments prevent attendance during the day and subject to a firm commitment from the student to put in the required amount of study and attendance on the language course. However, at present registration on the evening (OPAL) courses is required in MT week 0, which is impractical for freshers. This problem will be explored with OU Language Centre.]

Action: PJM

***Minute 8 Examiners' Reports – Prelims** It was noted that on MS2 there were very few attempts to the questions on Electronic Properties, and that those were poor. It was believed that, historically, this has not been a popular area for students in examinations. As an important role of the Prelims examination is to provide evidence of understanding of the subject matter, there was some concern that preparedness for the electronic properties elements of Year 2 core papers was not being demonstrated. DMAC considered that it was not necessarily that students did not understand the subject matter, as mechanisms such as tutorials were in place throughout the course to enable tutors to monitor basic understanding, rather that this area was less inter-related to other subject areas so, given the format of the papers, the students chose to avoid answering those questions. Having discussed a couple of possible solutions, such as splitting the papers into sections, or alternating a question on Kinetic Theory with a Physics-based question each year. DMAC concluded that further data should be established to determine the exact trend in uptake of questions before proposing any further action. Statistics from the previous four years are to be collated for this, and to identify whether or not there are similar trends in other areas.

[Secretary's Note following DMAC49: JCCU have also expressed concern about the content and speed of 1st and 2nd year Electrical Properties courses. A working group will be set up to examine Prelims and core FHS provision in this area.]

The statistics were tabled at DMAC 50. They demonstrated (i) that the low attempt frequency on Elec Properties had occurred in most MS2 papers over the last five years and (ii) that there were certain topics on the other Prelims papers for which attempt frequency was also low. DMAC agreed to consider this in more detail at a future meeting.

Action: AOT/ICS

***Minute 15 Chairman's Report**

i) Recording of practicals marks and lab attendance The improved procedures were due to be rolled out in MT 08.

In progress: AOT

[Secretary's note added after DMAC 50 – the draft procedure was sent out in early HT for comment by those involved.]

[Secretary's Note added after DMAC 51 – the new procedure has been adopted and is bedding in after initial teething problems. Action completed.]

***From DMAC 47**

***Minute 2 Report from the Chair of JCCG – Access to the Department Workshop** Following an action raised at a previous meeting, JCCG had drafted a proforma for applying for extended access giving details of the student, the supervisor, the project and an outline of planned workshop activities. JCCG will submit an electronic version of this. DMAC enquired as to the level of graduate students requiring extended access and whilst it was reported that this year the level had dropped due to the nature of projects undertaken, it was agreed that the procedure should be put in place to allow for an increase in the level of requests.

[Secretary's Note following DMAC 51: Despite several reminders the e-proforma has not been provided and it is clear that need for such extended access is fairly rare, therefore a proforma will now not be used. Instead AOT will include a section in the graduate handbook. Action (DA) superseded.]

***Minute 8 Regulation Change: Penalties for late submission of coursework and new deadline for submission of Part II theses** This prompted a question about the Business Plans, as some students had been penalised by Proctors for missing the deadline: these students had sent work via the internal post before they left to go on the Industrial Tour. It was agreed that an explicit statement would be added to the handbook confirming that it was the student's own responsibility to meet deadlines and when submitting work to Examination Schools this should be done in person so the work can be date-stamped. DMAC asked if the submission deadline for the Business Plans could be moved to de-conflict from the Industrial Tour. PJM is to investigate dependent timeframes with the course lecturer. AOT reminded DMAC that a change in deadline would require a regulation change through Faculty.

Action: PJM

***Minute 9 Teaching Lab Access for Research Workers** DMAC considered the level of control that should be implemented to assist the Practical Class Technician and others in managing requests from researchers for access to the Teaching Lab. DMAC agreed that access should always be arranged in advance, that users must provide their own consumables, and that supervisors should endorse such requests, having judged whether or not the researcher is competent in using the necessary equipment. Pre-arranged and planned access should negate the need for out-of-hours access, and access during afternoon undergraduate practicals should be actively discouraged. All usage must be subject to having satisfied the PCT that adequate training has been received. A well-equipped metallographic outfit, including resources, is available at Begbroke and when access to the teaching lab is not possible / convenient suitably trained researchers should be referred there in the first instance. A proforma is to be drafted explicitly stating these rules. Any exceptional requests and/or difficulties are to be referred to CRMG.

Action: AOT

[Secretary's Note following DMAC 49: Faculty were informed at the meeting in MT08. A proforma is to be drafted.]

***From DMAC 43**

***Minute 4i Report from the Chair of JCCU (AZ): Industrial Visits (DMAC 43/2)** CRMG agreed to explore with PJD whether an annual 'Begbroke' visit could be put in place that included spin-out companies and BegbrokeNano as a commercial enterprise. Action lapsed.

***From DMAC 37**

***Minute 4ii 2nd Year Polymers**

DMAC 48: AOT confirmed that BJG had been approached with this request and had agreed to undertake this review. However, HEA had submitted an interim report following DMAC 47 in which she advised that she considered the 2nd Year Polymers material to be appropriate in content and that no changes were required. Revisions have been made to the 1st and 3rd Year material which HEA would like to review once examination results are known. It was queried whether HEA's remit should cover tutorial teaching and DMAC concluded that, as HEA was conducting a large scale review of the Polymers material, tutorial teaching would be a part of this, together with the practical element. AOT advised that AJW had reported that the Polymer practicals were on a suitable pro-rata scale to fit with the lectures.

It was noted that the Polymers material was being taught by a team of 3: HEA, BJG and AARW. DMAC heard that students were now keener to take Polymers.

Action: BJG/HEA

***From DMAC 32**

***Minute 11iv Report from the Faculty: Guidance to Supervisors** AOT and CRMG will adapt the guidance from the EPSC. Andrew Watt, as part of his CDF duties, will assist in taking this forward, has been briefed by AOT and will produce a final version for DMAC in wk7 TT08.

In progress: AARW

[*Secretary's Note following DMAC 47: Update from AARW – he would still like to do this but workloads have prevented him from meeting the above deadline.*]

***From DMAC 27**

***Minute 4 Report from JCCU Chair:**

Practical Classes Possibility of submitting reports in word-processed format. JMS has provided a lead on information on software for the detection of plagiarism. AOT is investigating its use and attended a half-day workshop on plagiarism in June 2006. AOT noted that EPSC has now produced some guidance on plagiarism.

AOT reported that the University is now trialling plagiarism detection software called "Turnitin" in two departments (Law and Computing).

DMAC 45: AOT reported that MPLS had agreed to take forward his request that they ask for a progress report on this trial.

DMAC 48: AOT reported that the students had conducted their own survey to investigate whether or not the students would like to submit practical reports electronically. The results showed an equal split between those who would prefer to submit reports in a word-processed format and those who would prefer to continue with hand-written reports. DMAC was concerned that an electronic format could increase the risk of "cut and paste" plagiarism. DMAC also considered that there was benefit to be gained in completing hand-written exercises prior to examinations.

Whilst it was agreed that Turnitin would prove invaluable for large pieces of work, DMAC held the view that the markers could detect any similarity in reports within the year group, although admittedly not against previous years. It was agreed that any decision regarding electronic submission of reports should only be considered once further detail is known about "Turnitin". AOT advised that no update had been received from Division. CRMG will follow-up with the Proctors for details of progress with "Turnitin".

Action: CRMG

5. Admissions Report – 2008 Exercise (DMAC 51/2)

DMAC considered the admissions report noting that the number of applicants from state schools had increased marginally and that the number of overseas applicants had risen sharply.

6. Schools Liaison Report (Including Access and Widening Participation Work) (DMAC 51/3)

Up to the end of September 2008 Schools Liaison activities continued along Martin Carr's approach. Since MJC's departure, Dave Hutton and Vanessa Cheel have taken on a caretaker role ensuring MJC's activities continue, but also looking at developments and making improvements.

The Hirsch lecture was well attended by school teachers and the opportunity was taken to make the associated CPD event more intense than before which received a very positive response.

At the time of the meeting, 130 people (from ~20 schools) had booked in for the Materials Open Days to be held in March 2009.

The funding from the Gatsby Foundation ends in approximately one year's time, and the Schools Liaison team considers itself to be in a transitional state looking at how they can continue their activities under the reduced staffing and funding that will follow.

A new aim is to increase applications from state schools, and the team wishes to spend the remaining time of the Gatsby project determining what activities work best towards that aim. Contact with state school pupils might be enhanced:

- Directly through schools contacting the Department.
- Directly through the Department going out to schools. There has been little of this type of activity to date. The team would like to develop a package that could be taken out to schools.
- Indirectly through teacher CPD events. This is believed to be the most effective way of getting the message across to students because teachers can raise awareness in successive cohorts. It is often difficult for state schools to attend external events, and easier for them to host an invited speaker. Initially, 20 schools in Oxfordshire and the surrounding area will be identified. These will be schools that have their own sixth-forms and have a record of achieving good A-level results. Following initial visits to schools, potential candidates will be invited to Oxford for a short course, ideally on the day before college Open Days to provide an effective all-round package.

AOT informed DMAC that for a 5-year period the Schools Liaison Officer role will be shared between DH (for 1 day/week) and a new post (for 2-2½ days/week).

DJHC reported that the CyberSEM has now been redeveloped to allow passage through schools' firewalls, which had been a barrier to its wider use particularly in the state sector.

DH asked whether DMAC were concerned about the number of DPhil (& Part II) students being used to support Schools Liaison activities. DMAC expressed its support. DH highlighted that it is difficult to recruit students to these activities. AOT noted that this problem is not limited to Schools Liaison activities but is also a problem for other Teaching Assistant roles in the Department.

7. Degree Class Statistics (DMAC 51/4)

Over the 2004-2008 five-year average 34% of MS and MEM students gained 1st class degrees compared with 35.7% in MPLS as a whole. There was a marginal gender gap in favour of females gaining 1sts in Materials contrary to the gender gap in favour of males in MPLS and the University as a whole. The Materials gender gap would be neutralised if, for instance, four more men gained 1sts over a 5-year period.

Over the same 5-year average 77% of Materials students gained either a 1st or a 2i compared with 82% in MPLS and 90% in the University as a whole. The disparity between Materials and MPLS has narrowed. The gap between Materials and MPLS would be closed if, for instance, one 2ii was converted to a 2i per year in Materials.

DMAC did not consider either of these results to be a problem, but will continue to monitor the statistics.

8. Employment Statistics (DMAC 51/5)

DMAC considered the data for 2007. There were 15 respondents (postgraduate and undergraduate) of which 13% (two undergraduates) were 'unemployed' at the time of the survey. DMAC did not consider this statistic to be necessarily of concern since the 'unemployed' category includes graduates that might be taking gap years or undertaking VSO for instance.

9. *External Examiners' Reports (DMAC 51/6)

DMAC were pleased that the reports from both External Examiners were very positive all round. Indeed Prof Greer had noted the straightforward way in which the Part I core examinations were structured and Cambridge would be adopting a similar structure. DMAC noted that neither External Examiner had complained about the load associated with examining the MS Part II.

10. Review of Collaborative Provision (DMAC 51/7)

DMAC reviewed the collaborative provision of teaching related to the small number of external MS Part II projects. ICS presented the marks of external MS Part II projects compared with those of internal projects for the past three academic years. In six out of eight cases the marks of the external projects were higher than the mean mark of the internal projects, although it was recognised that only good students are given approval to undertake external projects and there is no guarantee that these students would not have achieved even higher marks had they remained in Oxford. DMAC were generally satisfied that those students undertaking external projects were not at a disadvantage.

It was recognised that a small minority of students carrying out external projects had experienced problems during their period out of Oxford, although the support mechanisms in place (the appointment of an Oxford based academic supervisor, the project management reports reviewed by the Part II Organiser, and the normal pastoral support of the College Tutor) had dealt with those problems adequately.

ICS described the implementation of the Education Committee devised Memorandum of Understanding between Oxford and the host institution to be used in all future collaborative provision.

11. Lecturing Commitments

A member of staff that had been expected to lecture on the Materials Characterisation module in HT09 had pulled out at the last minute. In future the Director of Studies will include the names of the Characterisation and Modelling module lecturers on the General Scheme to highlight these teaching commitments.

12. PGR Assessed Courses

Postgraduate students are required to undertake two assessed courses, and many choose to sit 3rd year UG options courses. The lecturer of one particular 3rd year option had reported that a member of staff had insisted that one of their postgraduate students be assessed on that course despite it being already half-way over before the student attended. The lecturer asked DMAC to consider whether in general this situation was appropriate for PG assessment. DMAC's view was that it was for individual lecturers to decide what level of attendance was appropriate for an assessed course, and that the current practice of assessed course selection did not need to be amended. DMAC were also asked to consider whether the criteria for satisfactory assessed work should be defined. AOT will include general statements in the PG course handbook to indicate that a reasonable level of attendance at assessed courses is expected, and on the criteria for satisfactory work.

13. Report from the E(M)EM Standing Committee (KAQOR/ICS)

The Standing Committee did not meet in HT09.

14. Reports from Divisional Committees**i. Academic Committee (AOT)**

- Number of External Examiners. There is a broad range within MPLS. Chemistry appoints nine External Examiners but is reconsidering that number. Engineering Science has appointed two to date, but are increasing the number to three. Materials appoint two. It was thought that this may become a QAA issue, as there is concern that having only two examiners is a risk if one should for instance fall ill. DMAC's view was that given the size of this Department the practice of appointing two highly experienced External Examiners from what is a relatively small pool is reasonable.
- Graduate School. Papers related to the proposed Graduate School continue to move to higher level committees. There is still concern at Divisional level that the Grad School would not provide any added value. The greatest concern is that its introduction might result in centralised decisions on funding.
- Class lists. Class lists will no longer be published.

ii. Graduate Studies Advisory Panel (AOT)

- Divisional shared provision of PG teaching. As part of a more focussed Divisional shared Graduate provision each department is being asked to offer one useful course. It was suggested that either a basic Electron Microscopy lecture course (not the 3rd year Characterisation module) or the Introduction to Quantum Computing graduate course might be suitable.
- Confirmation of Status. Modified rules for transfer and confirmation of status will be published shortly.

15. Chairman's Report

- Termly Graduate supervision reports. AOT asked for feedback on the recently introduced on-line system for submitting Graduate supervision reports. It was generally regarded as a good development, but there had been significant problems accessing the system.
- OSS Graduate admissions. As of TT09 login to the system will be through single sign-on. A number of members of staff have found the system to be cumbersome and found it difficult to filter out the information that is most relevant to them. AOT agreed in future to provide a summary to help staff to filter records for relevant applicants.
- Teaching Award Scheme. The scheme will run again this year, but may not run again in future as the funding is no longer ring-fenced.
- Engineering Science – Production Engineering. Eng. Sci. is exploring with us the possibility of shared lecture courses in Production Engineering (C paper level). DMAC were of the view that in principle this was reasonable, so long as no new lecture material had to be prepared and no additional exam questions had to be written by Materials staff. Concern was raised about whether additional class teaching and classwork marking would be required.
- MS Part II supervision by casual staff. AOT reported that a member of non-academic staff who was acting as a Part II supervisor had claimed from the student's college a greater amount of time than the norm of 8 hours per term for supervision. DMAC agreed that the general principal of claiming 8 hours per term should still hold, but the Head of Department

undertook to write to the appropriate college in future special cases, asking them to pay at a higher level.

- Guardian university league tables for teaching. It was reported that Oxford was 25 percentage points ahead of any other 'Materials' department covered in the survey. It was noted that Cambridge was not included.

16. Any Other Business

There was no further business.

Date of the next meeting – 2.00 pm Monday 11th May 2009, Wolfson Meeting Room. The meeting closed at 5.38 pm.