

FACULTIES OF MATHEMATICS, COMPUTER SCIENCE & STATISTICS

JOINT CONSULTATIVE COMMITTEE WITH UNDERGRADUATES

MEETING OF FRIDAY 5 FEBRUARY

UNCONFIRMED MINUTES

Present: Dr Richard Earl (Director of Undergraduate Studies and Joint Committee for Mathematics and Philosophy; chair), Haengeun Chi (MURC President), Steven Rose (MURC Secretary), Charlie Hutchings (MURC Treasurer), Tim Hosgood (MURC Questionnaire Rep), James Lau (MURC Outreach Rep), Naomi Vides (MURC Diversity and Inclusion Rep), Nicholas Williams (MURC Mathematics and Philosophy Rep), Alexander Homer (MURC Mathematics and Statistics Rep), Liam Stigant (MURC IT Rep), Natasha Davey (MURC Fourth Year rep), Brigitte Stenhouse (MURC Publicity and Careers Rep), Dr Janet Dyson (Faculty Teaching Advisor), Dr Rebecca Cotton-Barratt (Admissions Co-ordinator).

In attendance: Mrs Helen Lowe (Deputy Academic Administrator)

Apologies for absence: Dr Neil Laws (Department of Statistics), Ms Bulvinder Gurm (MPLS Division)

1. Meeting held on Friday 30 October 2015

(a) Minutes

The minutes of the previous meeting were approved.

(b) Matters arising

All matters arising appeared later on the agenda.

2. Reports from the meetings of the Faculty and Teaching Committees

(a) Mathematics

Divisional Review of Mathematical Institute

Dr Earl reported that there had been two teaching committee meetings since the last JCCU meeting. He highlighted that the Teaching and Learning part of the Divisional Review had occurred in 0th week, which went 'swimmingly.' The department's outreach was commended, and the undergraduate programme was praised. The Review Panel had discussed the proposal that the 4th year may be an opportunity for external students to enter the course, however such ideas were not fully fleshed out at this time, due to a cap on student numbers. Dr Earl stressed that there are no immediate plans, and any such changes will of course be brought to MURC and other committees at appropriate times.

Length of Parts B and C Examinations

Dr Earl explained that the lengths of papers had been considered; in particular there were concerns that the hour and a half part B and part C papers were not particularly suitable in testing what the department would like to be testing. He reported that there were discussions to reduce the time pressure at the various committees across the three departments; statistics were happy to extend to 1¼ hours as of 2017; computer science decided to extend times to 2 hours due to the greater amount of reading and description typically involved.

Supporting Students through Transition between Years of the Degree Course

Dr Earl reported from the most recent Teaching Committee meeting about the discussion regarding supporting the transition between years. It was proposed that a similar approach to bridging the gap between A-level and university would be appropriate. It was thought good practice to set a “sheet 0” for courses that would be unmarked with solutions provided, but would make some introduction to the course and direct students to suitable preparation/revision. It was thought that this would be useful for giving students a flavour of options in a way that would assist choice. Teaching Committee would recommend this as good practice. He also suggested that this provides a way of introducing work within week one.

It was asked if the department was doing anything to address the gap between 6th form and university. The response was that there already exist vacation problem sheets, study guides and bridging material. It was asked if students are aware of these resources; the response was that tutors are aware of resources and encouraged to send them to new students.

It was suggested that the level of communication about the existence of the resources may vary between colleges. There was a suggestion of creating a website specifically for offer holders to collect and advertise these resources for students. Dr Earl suggested adding to the academic calendar a date to email tutors about the availability of the resources; it was suggested this be after results day, with which the meeting agreed. Dr Earl expressed a reluctance to agree to compulsory sheets for new students as tutors may wish to set other introductory work.

The point was raised that international students may have issues accessing books on reading lists. It was responded that there isn't much that the department can do about that, and that the online lecture notes provide a lot of introductory material. It was suggested that tutors be encouraged to direct offer holders to these online notes. Dr Earl suggested an email be sent to tutors to direct attention to online guides and notes at an appropriate point in the year.

The point was also raised that sometimes lecture notes for part B and part C courses are not available till the start of term, and hence do not give students any introductory material. The point was raised that the course notes may not be appropriate year on year, so old lecture notes may not be useful, and new lecture notes may not have been written. Dr Earl expressed the thought that a sheet 0 would satisfy this requirement with regards to aiding course choice. It was asked if it would be possible for lecturers to provide an alternative reading list referencing specific pages in cases where lecture notes were unavailable.

In relation to this last point, the meeting also discussed the problems this caused for students entering for the Parts B and C exams early in Hilary term. It was noted that this deadline was a matter for the Exam Schools.

(b) Statistics

Dr Laws had indicated that there were no matters to report.

3. MURC Business

(a) Model solutions to Parts B and C problem sheets

Dr Earl reported that model solutions were discussed at the Departmental-Faculty Meeting; the request to provide solutions was not particularly well received, with one person in favour, and everyone else opposed.

The point was raised that MURC feel it is unfair that there was no undergraduate representation at this Departmental-Faculty Meeting. It was noted that undergraduates aren't represented at Departmental Committee whereas graduate students are. It was noted that it had been discussed at a previous JCCU whether there was a need for undergraduate representation at Departmental Committee and it had been agreed that there was not a need for this as the committee deals largely with administrative matters.

Dr Earl took it as an action point to raise the matter of undergraduate representation at the Departmental-Faculty meeting at the next Departmental-Faculty Meeting.

It was asked if there were tutors who would be willing to provide model solutions without wanting to make it compulsory for other tutors. It was replied that there are worries about what would happen regarding attendance at classes, and also students using the model solutions to avoid working on the sheets with the appropriate effort. It was asked if there was a policy against solutions being provided or encouragement against this; Dr Earl replied that there is not, as the variety of questions and needs would render this unhelpful.

It was asked if an alternative was suggested to address the problems raised by MURC that lead to the desire for model solutions. It was responded that the Departmental-Faculty meeting had not felt there were problems to be addressed. The points were raised about the unavailability of the solutions being unhelpful when students don't understand material during classes, or when there isn't time in a class for all problems to be covered. The suggestion of skeleton solutions was offered. However, it was reported that there was strong objection to this within the Departmental-Faculty meeting as it would give a false impression of what a solution should involve.

The argument was given that larger classes can't be catered towards a minority of students who are struggling to understand the material, and hence these students aren't benefiting. It was responded that while this may be an issue, there are other avenues to receive assistance such as consultation sessions. It was offered that there are model solutions of specimen exam questions. The opinion was expressed that students would rather have model solutions to problem sheets rather than exams for the purpose of learning; it was replied that the model solutions exist for specimen papers so that students know what to expect in the exams.

It was asked whether there should be model solutions then for all exam papers. The point was raised that there exist groups of students who share solutions together, which has worked to their benefit; the assertion that this produced a benefit was then questioned on the basis of personal experience by the tutors.

(b) Requirement that sub-fusc be worn for BSP oral presentations

Dr Earl agreed with the concerns about unconscious bias, however the requirement of subfusc was not a departmental policy, and rather is part of University

Regulations (one must enter and leave exams that contribute to a degree in subfusc). It was reported that MURC had discussed the possibility of everyone wearing commoner's gowns.

Dr Earl agreed to take this to Divisional Academic Committee, and pointed out that the point had been raised by other tutors in other departments. The issue was also raised that gowns affect confidence of students.

(c) Diverse appreciation of the history of maths

It was raised that some lecturers enjoy including historical context in their lectures, and it was suggested that the tutors who enjoy doing this be encouraged to include history relating to non-European and/or female mathematicians for better representation.

It was replied that a lot of the modern maths studied are western results; someone then gave quite a number of examples of women in mathematics, and suggested that tutors interested in the history of mathematics would be just as interested in the influence of under-represented mathematicians. It was pointed out that this does not need to be an extensive coverage of history, but rather a mention of names of relevant mathematicians to reveal gender of the mathematicians whose results are being used.

It was expressed that women are underrepresented in the history of mathematics largely because they were excluded from mathematics at the time; this was disagreed with, and that the issue was the women mathematicians have had their work forgotten because they were not accepted as professional mathematicians, despite having equivalent work.

The opinion was expressed that there is little influence of women mathematicians in the undergraduate course as most of the maths is from before the 20th century, whereas in a graduate course which focuses on modern mathematics female mathematicians would be better represented.

The opinion was expressed that this would be a very progressive step; that this is a matter of including footnotes, not changing the material. It was emphasised by MURC that this is only a suggestion for mathematicians who do enjoy including historical context.

It was expressed that the Department currently works to give role models of women mathematicians regarding first year lecturers. The concern was voiced that if there is an active effort to include women mathematicians may reduce the quality of women role models. It was agreed that 'shoe-horning' women mathematicians would be negative, however deeper investigation would likely reveal women mathematicians who have significantly contributed to mathematics.

It was suggested that this be raised at a further point with more concrete examples and suggestions.

(d) Mid-term lectures survey/review

See minute of 5(a).

(e) Part B and C Classes Format

It was reported that in Stats teaching committee the format of stats classes had been discussed, and there had seemed to be a consensus in the room that the format was not ideal though no suggestions for improvements had been made. The format was taken to be the presentation of solutions. It was reported that this was taken to a MURC meeting, in which it was suggested that shorter, more frequent classes. Dr Earl responded that the currently format of four classes is in place as a response to previous feedback on six classes. It was added that there were some courses that had six classes rather than four, and that a variety existed within the department. It was emphasised that there were no strong feelings on this in the MURC meeting. Dr Earl invited further suggestions from MURC in the future.

(f) Drinks social events for undergraduates

It was suggested that within the maths department, there are much fewer undergraduate social events than within other departments, leading to poor integration between colleges. Dr Earl responded that there currently exist one or two events (such as the prize-giving), but that further events may not address the concerns raised, as groups of people still tend to socialise within college groups.

It was suggested that prize giving is not a particularly social opportunity, though this was disagreed with as there is a drinks reception after the prize giving. It was responded that this is still perceived as a formal, and non-social event.

It was suggested that Invariants events satisfy this desire, however it was suggested that this was not appropriate as there are limited social events within Invariants, and it is a membership that requires payments.

It was asked if there were any concrete suggestions for events, particularly if these were intended to receive funding from the department. It was suggested that the main issue with such an event is the large size of the undergraduate cohort, which creates difficulties in hosting an event for all students.

It was suggested that we have an options fair followed by a drinks reception, which would be particularly relevant, as intercollegiate mixing would be more useful to undergraduates in later years. There was a suggestion to give a budget to tutors or TAs to arrange class parties at the end of courses.

It was raised that there had recently been an application for a club permit for the department. It was replied that this was for between 5 and 6 on Fridays for post-colloquium receptions. It was expressed that there exists a large distinction between

the requirements of graduate students and undergraduate students – largely relating to scale but also in the departments responsibilities to both groups – which make such a licence more appropriate to cater towards graduate needs rather than undergraduate needs.

4. Policy & Guidance on Student Engagement and Representation

Dr Earl reported that the Guidelines had largely been discussed and agreed with in the past.

It was suggested that there were some small inconsistencies between the document and practice within the Department, but this is largely because most departments don't have a body such as MURC. It was agreed that the discrepancies are not too problematic.

5. Questionnaires

(a) Michaelmas Term 2015 statistical summaries

It was reported that the idea of informal mid-term questionnaires was floated, as was the suggestion of a box to describe what kind of student someone is (i.e. PhD students, undergraduates, etc) for classes and lectures in which more than one kind of student is attending, as this may skew the results regarding difficulty of a course if it's only largely one kind of student responding.

There were pedagogical issues raised regarding the treatment of feedback from different students, as the assumption is that of terminology, and students are intended to be treated the same when on the same courses. It was also suggested that the question regarding college provisions be removed, as the department cannot respond to that box in a useful way. However this question did occasionally highlight issues. For example, it was reported that some colleges do not offer tutorials in complex analysis on the grounds that students should be able to teach themselves the material, with the negative response last term being 15%. It was asked if this was a historic issue; this would be followed up. Dr Earl agreed to look further into this issue.

There were issues expressed regarding implementation of mid-term lecture questionnaires. It was reported that one tutor last term offered a similar system where students were given a blank piece of paper to offer feedback if they so desired, and that this system had worked well. It was suggested that questionnaires receive small amount of quality feedback due to the perception that they are unhelpful for the students filling the questionnaires, which mid-term questionnaires would allow issues to be addressed in the current year.

It was suggested that this had been tried before with limited success. It was also suggested that lecturers largely use their own students as a litmus test for their courses, though it was suggested that this was not viable for part C courses.

It was reported that early responses to lecture courses exist online, and Dr Earl suggested encouraging lecturers to invite the use of these questionnaires. The

proposal was put forward to in third week asking lecturers of part B and C courses to accept slips of paper for the purpose of providing numbers as feedback (specifically not handing out sheets, hence reducing time commitment). There were concerns about making such a system obligatory. It was suggested that such a system be electronic. This was found to be agreeable by MURC. Dr Earl agreed to take this to Departmental-Faculty Meeting

(b) NSS Results 2015

The NSS results were reported to have been discussed in Teaching Committee; it was noticed that the typical problems received were received, such as a lack of clarity in criteria used in marking (though it was noted that 67 isn't a very poor score). It was raised that questions 19 and 20 were particularly problem responses.

It was suggested the questions are not particularly useful in assessing the fulfilment of the aims of the course; for example, the communication taught in a mathematics course is that of presenting a rigorous argument. It was also noted that some colleges offer the opportunities for presentations, which develops communication skills, though these are rather ad hoc. It was reported that a survey suggested that around half of colleges offered such projects.

It was also noted that the Department provides resources for improving presentation skills, and that previous targeted efforts to address this (for example, a Teach First event) had not been particularly well received.

It was asked if this was thought to be related specifically to the opportunity to provide presentations. It was responded that the sort of contrast between tutorials and classes in mathematics – in which solutions are largely presented by tutors – contrast greatly with that of humanities students who must defend their essays.

It was suggested that it is a difficult matter for the department to address due to the size of the undergraduate cohort, contrasting what can be done for fourth years with the first years, and hence it is largely a matter for colleges, so beyond the department providing suggestions for colleges, the department had little influence on the matter.

The existence of outreach efforts and mathemagicians was also suggested to provide opportunities to increase experience in presenting and communication skills. Dr Earl suggested that the student ambassador training opportunities be advertised with emphasis on inviting all undergraduates, including the suggestion that it aids presentation skills.

It was suggested that there are opportunities within tutorials to encourage presentation skills in short and informal ways; it was suggested that the Department encourage this to be practiced in such a way without reducing useful tutorial time. It was suggested that part B students could be asked to give presentations on their options to part A students; it was responded that some colleges already do this.

It was reported that in discussions on optional questions on problem sheets, it was suggested that the difficulty of the optional question be reported so that students are aware of the purpose of the questions.

(c) **Good Practice Committee Survey of Third Years and Focus Groups**

It was reported that in a coming third year survey, the department will be asking on the sheets for volunteers for participants in focus groups. The focus groups would be focused on gender differences in performance and entrance into fourth year. It was asked that MURC encourage people to engage in focus groups.

6. Undergraduate study room: 4-8th April

Dr Earl reported that the departmental policy regarding the undergraduate study room is that the room can only be used for conferences during the long vac. It was reported that there was a large conference in the short vac, and that the current plan is just to allow both groups to make use of the room. He suggested if there were major objections, another space could be made available for the undergraduates. It was added that the TCC room has been booked for this purpose.

7. Open Days

It was reported that the open days are a week earlier which would provide no issue due to Cambridge changing their open day schedule as well.

8. Lecture list for Trinity Term 2016

The lecture list will appear on the Mathematical Institute's website <https://www.maths.ox.ac.uk/members/students/lecture-lists>

9. AOB

It was asked what was happening with the MURC website. It was answered that the material needs to be archived before it is removed. It was reported that the link available to the department does not link to the new website. It was asked if the new pages exist somewhere on the new maths website, apparently they do, but they may not be public. It was noted that if "MURC" is sought using the search box on the maths website, the website can be found, however there are issues with searches on Google; the prospectus would need to be – and will be – updated to link to the new website correctly.

It was reported that the Facebook group had not been updated since 2012 and that MURC wished to delete it, but did not currently know how.