

UNIVERSITY OF CAMBRIDGE
FACULTY OF COMPUTER SCIENCE & TECHNOLOGY

Chairman: Dr David Greaves

Secretary: Ms Dinah Pounds

Minutes of the meeting of the Tripos Management Committee
held on Monday 22 February 2016 at 13:30 in GC22

Members

Dr Richard Gibbens (Representative on
Mathematics Faculty Board
Dr David Greaves (Chairman)
Dr Robert Harle (Part IA coordinator)
Dr Sean Holden (Part II and supervisions
coordinator)
Dr Mateja Jamnik

Prof Ian Leslie
Dinah Pounds (*Secretary*)
Prof Peter Robinson (*Exchange
Programme Organiser and Deputy HoD*)
Megan Sammons (*Student Administrator*)
Dr Simone Teufel

The Committee offered congratulations to Dr Robert Harle on being awarded the Pilkington Prize for excellence in teaching.

1. Apologies for Absence

Prof Ian Leslie

2. Notification of any other business

- i. Revision of the preparatory course reading list. DJG
- ii. Maths for Natural Scientists course. RJG

3. Approval of the minutes of the previous meeting

The minutes were agreed and signed.

4. Matters arising

- i. Item 4. Dr Harle suggests an automated email twice a term from Directors of Studies to supervisors informing them of appropriate candidates to give a presentation on starred ticks. This year IA students attempted the ML and Algorithms starred ticks but not Java. The reasons are not clear and further feedback will be sought in the forthcoming focus group discussions.
Action DP
- ii. Item 7i. (see Item 7i below.)

5. Reports from other committees

Staff-student consultative forum. To aid concentration, students have requested a brief break in the middle of lectures, particularly in Part II where there are occasionally four lectures in a row. The Committee propose publishing a brief teaching guide on good practice in lecturing and writing exam questions which would be useful for all lecturers. A discussion during the Lab's annual 'away day' to share best practice was also suggested. **Action DP**

EXCEPTIONAL ITEMS

6. Lecturer cover requirements for courses with staff on sabbatical.

- i. The Committee recommend that C and C++ be taken over by a UTO and revised as an online course similar to Prolog and Further Java. Staff will be approached once the current review of lecturer workload is complete.
Action DJG

- ii. The Committee were happy for Maris Ozols to cover Part II Quantum Computing during Prof Dawar's sabbatical leave.
- iii. Cover for Dr Andrew Rice. Dr Harle is able to cover the Java aspects of the IA Pre-arrival course. He also suggests that Programming in Java be reviewed and redesigned along the lines of the new Algorithm ticks which have proved much more popular with students. A new RA who can assist in revising the course will be sought. Drs Harle and Greaves will meet with Dr Beresford to discuss arrangements for IB Further Java and Prolog. **Action RKH/DJG**
- iv. A replacement lecturer is needed for Dr T. Sauerwald for Part IA Algorithms. There are a number of staff qualified to teach this course and they will be approached once the current staff workload assessment is complete. The course and exam structure proposals will be considered at a tripos revision group meeting. **Action DJG**

7. Syllabus revisions for 2016-17.

- i. Part II NLP. The NLP lecturers will find it difficult to cover existing undergraduate courses and deliver the new Paper 3 course next year as one member of the group will be on sabbatical leave for two years and the new Paper 3 Machine Learning and Real World Data will leave UTO staff very stretched. The Committee approved the request that this course be given by Dr Shutova next year and were happy to approve the revisions to the course suggested by Dr Shutova.
- ii. Part II Artificial Intelligence. The Committee welcomed the revisions to the course. The course has been substantially revised and will be renamed Machine Learning and Bayesian Inference. It builds on the material covered in Part IB Artificial Intelligence. The Committee requests that the relevant lecturers ensure there is logical follow-through between the new Paper 3 Machine Learning and Real World Data (MLaRWD), Part IB Artificial Intelligence and Part II Machine Learning and Bayesian Inference, in particular, that common notation be used. **Action SHT and SBH**
- i. A proposal to extend the length of the Part IA Discrete Maths course and separate Regular Languages and Finite Automata (RLFA) into a standalone course was considered but the Committee felt that it is academically sound for RLFA to continue to be taught in Part IA. Timetable constraints preclude extending the course but the Committee expressed concern that there is still too much Discrete Maths material to fit into the allotted lectures. It was agreed that the course should remain a 24 lecture course in Part IA and a review of the course material should be set up to find a solution. **Action DJG**
- ii. Part II Bioinformatics. The Committee welcomed the restructuring of the course. It is hoped that use of a textbook will facilitate the recruitment of supervisors.

8. Tripos revision.

- i. The draft syllabus for Databases was presented and the Committee welcomed the outlined course. There are some omissions to the syllabus which need addressing. A more detailed version with interpretation of the practical sessions is requested for the forthcoming tripos revision group meeting.
- ii. The draft syllabus for MLaRWD was presented. The Committee confirmed that the course would be timetabled with two 3 hour sessions per week allowing up to 1 hour of lecture time and the remainder as practical time. It is envisaged that for MLaRWD, there will be 30 minutes of lecture outlining a set

of concepts followed by 2.5 hours of practical work leading to a tick. How many exam questions will be allocated will be further discussed at the next revision group meeting.

- iii. Suggestions for Security I. The outline for courses in Security and Cryptography was broadly welcomed. A detailed proposal is requested for the next revision meeting.
 - iv. The Committee considered the proposals on how to reduce student workload in Part IB. It was felt that Logic and Proof is core material and should remain in Part IB. Other options will be referred to the tripos revision group.
9. Suggestions for a social event to help Part IA students get to know one another were discussed. The offer from St John's College to extend Wilkes Society events to all our IA students was warmly welcomed. In addition, it was felt that the students would benefit from a team building activity rather than a visit to Bletchley Park. The Committee would like the student representatives to canvass student view and help organise an event at the start of Michaelmas term. **Action DP**
10. A new dais, screens and PA for the Intel lab was recommended to facilitate short demonstrations during practical labs. The Committee thanked Brian Jones for his detailed proposals and requested we install Adobe connect on a PC and stream to students laptops or the existing PCs. For the dais, the Committee would like a portable lectern which will hold a laptop and teaching notes. **Action PR/DP**
11. The current script for admissions will be revised and a more up to date video made. **Action DP**
12. **Any other business**
- i. Revision of the preparatory course reading list. The Committee agreed to maintain the current list, namely, A Kee Dewdney *The New Turing Omnibus* and Kevin Houston *How to think like a Mathematician*. An additional book by a female author is also desirable to offer a positive role model to female students. **Action DJG**
 - ii. Maths for Natural Scientists course. Dr Gibbens expressed concern that the course is very much geared towards physics and only a minority of our students will study physics in Part IA in future. The Committee agreed to review this at a later date and to consider the possibility of utilising the syllabus offered by the Department of Engineering. Feedback from students on their experience of this course and its usefulness will be sought at the forthcoming student focus group meetings. **Action RJG/DP**

13. **Date of next meeting** – 25 April 2016