



25th September 2007

Vice-Chancellor  
University Offices  
University of Oxford  
Wellington Square  
Oxford  
OX1 2JD

Dear Vice-Chancellor

Last week (17<sup>th</sup> and 18<sup>th</sup> September) I spent two intensive days in Oxford participating in the final assessment (in particular, the assessment of the dissertations and the oral examinations) for the MSc in Mathematical Modelling and Scientific Computation. This letter constitutes my official written report on my duties as external examiner for this course during the academic year 2006-07.

My main conclusion is that the entire assessment procedure (and, in particular, the assessment of the dissertations and the orals) was conducted in a fair and rigorous manner to the appropriate standards, and that I am content with all of the final decisions made by the Board of Examiners.

In general, it would be fair to say that I was slightly disappointed by the overall standard of the students and the work they presented: although there were (as usual) many excellent students of whom the University can be rightly proud, this year there was a noticeable "tail" of weaker students some of whom were close (and in a couple of cases, very close) to failing. Nevertheless, all those who passed did so on merit, and all those who gained a distinction deserved it. More generally, I wish to give my strong support to the current practice of giving an oral examination to all of the students (unless special dispensation is granted in exceptional cases) as I believe that the oral examination plays a vital and unique role in the assessment procedure. Indeed, I would urge the University not to allow students to be exempt from the oral unless the situation is indeed truly exceptional.

I was very happy with the new procedures put in place for the new "combined" MSc this year. Rather than having to read all of the dissertations and attend all of the orals (a near impossible task), I was given the best and the worst dissertations to read and moved smoothly ("triage-style") between the two parallel series of orals (each conducted by two internal examiners). Despite my initial doubts the new system worked well and I recommend that it be continued next year if the number of students again exceeds a dozen or so.

During the year a problem arose with the examination in modelling (paper A1), which was far too hard and required some (appropriate) rescaling of marks to re-balance it against the other examinations. Last year I saw the examination papers before they were sat, but this year a change in the rules meant that I did not have to see them and so I wasn't asked to check any of the papers. While I can't claim that I would have definitely identified the problems with paper A1, I think should have had the opportunity to comment on a draft version. I recommend that in future years the external examiner is given sight of the draft examination papers, not least because the discipline of having to provide them to the external might help to avoid the last minute rush which I believe may have occurred this year.

Also new this year was the distinction between "R" strand dissertations (worth 6 credits) and "C" strand dissertations (worth 4 credits). Like the other examiners, I found it very difficult to distinguish between the two in practice. In particular, the best dissertation was actually a "C" strand one, and some of the weaker dissertations were "R" strand ones. I urge the course organisers to investigate ways of clearly distinguishing between "R" strand and "C" strand dissertations in future years.

I was rather disappointed by the presentation of several of the dissertations. There is really no excuse for simple spelling and LaTeX errors. I presume that the students are given some formal instructions in

scientific writing, but I recommend that consideration be given to enhancing this material in future years. A couple of the dissertations contained an explicit list of what was new in them which all of the examiners found very helpful. Perhaps the course organisers should consider asking all of the students to include such a statement in future years?

In general, I thought that the students were rather good about acknowledging the sources of material used in their dissertations (such as, for example, acknowledging individual web pages from which specific figures were taken). However, there were exceptions and I urge the organisers to continue to emphasise the rules which apply in this regard. (My anecdotal feeling is that the current "internet generation" are, in general, rather more careless in this regard than previous ones.) There was, as you presumably already know, one possible case of plagiarism which we referred to the Proctors. Whatever the eventual outcome of this case (and it is possible that the student in question was acting in good faith) it is essential that the students receive clear and unambiguous instruction about exactly what constitutes plagiarism (and what does not), and I urge the course organisers to strengthen and expand their advice and guidance to the students in this regard in the coming year.

When problems do arise they often occur when there is a break down of communication between student and supervisor. While I believe most of the students to have received excellent supervision, there were one or two who probably hadn't. While I appreciate that different academics will supervise in different ways, I believe that there is an issue here that needs attention. In the interest of fairness to the students I urge to course organisers to consider ways of encouraging the less diligent supervisors to provide the same level of support as the best.

On a rather more trivial point, one student declined to wear full subfusc for the oral, say that she wasn't prepared to spend "30 quid" to hire a gown, hat and tie "for just half an hour". This disappointed me, and although the examiners were content to proceed with the oral (and the student eventually got a distinction), I would urge the course organisers to do what they can to ensure that this doesn't happen next year.

Finally, I want to put on record that the local arrangements during my short stay were excellent. I particularly wish to thank the Chair of Examiners (Professor Trefethen) for his kind hospitality, and the local administrators (Lotti Eckert and Kathryn Gillow) for their smooth and efficient work support.

Yours sincerely

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cc Professor Lloyd N. Trefethen (Chair of Examiners)