

**The University of Leeds**  
**EXTERNAL EXAMINER'S REPORT**  
ACADEMIC YEAR: 2010– 2011

**PART A: GENERAL INFORMATION***Subject area and awards being examined:*

<b>School of:</b> <b>Computing</b> <b>Programme(s) / Module(s):</b> Meng/BSc Artificial Intelligence MSc Artificial Intelligence MSc Advanced Computer Science	<b>Subject(s):</b> <b>Artificial Intelligence, Computer Science</b> <b>awards: (e.g. BA/BSc/MSc etc.)</b> MEng, BSc, MSc
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The completed report should be attached to an e-mail and sent as soon as possible, and no later than 6 weeks after the relevant meeting of the Board of Examiners, to [exexadmin@leeds.ac.uk](mailto:exexadmin@leeds.ac.uk).

Alternatively you can post your report to:

**Head of Academic Quality and Standards,**  
**Academic Quality and Standards Team,**  
**Room 12:81, EC Stoner Building,**  
**The University of Leeds, Leeds LS2 9JT**

**PART B: COMMENTS FOR THE INSTITUTION ON THE EXAMINATION PROCESS AND STANDARDS*****Matters for Urgent Attention***

*If there are any areas which you think require urgent attention before the programme is offered again please note them in this box.*

None

***Only applicable in first year of appointment***

*Were you provided with copies of previous relevant External Examiners' reports and the response of the School to these?*

Yes

***For Examiners completing their term of appointment***

*Please comment on your experience of the programme(s) over the period of your appointment, remarking in particular on changes from year to year and the progressive development and enhancement of the learning and teaching provision, on standards achieved, on marking and assessment and the procedures of the School.*

N/A

## Standards

**1. Please indicate the extent to which the programme aims and intended learning outcomes (ILOs) were commensurate with the level of the award?**

- *The appropriateness of the intended learning outcomes for the programme(s)/modules and of the structure and content of the programme(s);*
- *The extent to which standards are appropriate for the award or award element under consideration.*

The programmes offer a good range of compulsory and optional modules which cover the main areas one would expect for degrees of this kind. The assessments and examination papers are at an appropriate level.

**2. Did the aims and ILOs meet the expectations of the national subject benchmark (where relevant)?**

- *The comparability of the programme(s) with similar programme(s) at other institutions and against national benchmarks and the Framework for Higher Education Qualifications.*

The programmes are fully in accord with national benchmarks for computing degrees, with an appropriate emphasis on those aspects related to Artificial Intelligence. Where the courses overlap with those given at my own institution, they are of comparable level and standard.

**3. Please comment on the assessment methods and the appropriateness of these to the ILOs?**

- *The design and structure of the assessment methods, and the arrangements for the marking of modules and the classification of awards;*
- *The quality of teaching, learning and assessment methods that may be indicated by student performance.*

I was particularly interested that most of the exam papers used for these programmes are of the “open book” variety, which we have not made much use of in Computer Science at Exeter. The impression I had from looking at the scripts and talking to the students is that this is a worthwhile practice, allowing examiners to probe understanding rather than memorisation. Another arrangement which differs from what we do in Exeter is having the second semester of the final year entirely devoted to the 60-credit project. This seems to work well and was popular with the students.

**4. Were students given adequate opportunity to demonstrate their achievement of the aims and ILOs?**

- *The academic standards demonstrated by the students and, where possible, their performance in relation to students on comparable courses;*
- *The strengths and weaknesses of the students as a cohort.*

As one would expect, the range of student performance was considerable, from some excellent achievement at the top end down to students who are struggling at the bottom. The impression I had was that the range was broadly comparable to what I have experienced at Exeter, though with the larger numbers of students at Leeds it is not surprising that the extremes were more marked.

**5. For Examiners responsible for programmes that include clinical practice components, please comment on the learning and assessment of practice components of the curriculum**

N/A

**6. The nature and effectiveness of enhancements to the programme(s) and modules since the previous year**

*It would be particularly helpful if you could also identify areas of good practice which are worthy of wider dissemination.*

N/A

**7. The influence of research on the curriculum and learning and teaching**

*This may include examples of curriculum design informed by current research in the subject; practice informed by research; students undertaking research.*

The masters level programmes particularly (but also to some extent at level 3) clearly include topics that reflect the research interests of the staff, and this is also fairly evident in the projects, where many of the students, not just the abler ones, showed evidence of beginning to undertake research of their own.

## **The Examination Process**

8. **The University and its Schools provide guidance for External Examiners as to their roles, powers and responsibilities. Please indicate whether this material was sufficient for you to act effectively as an External Examiner?**

- *Whether external examiners have sufficient access to the material needed to make the required judgements and whether they are encouraged to request additional information.*

I was sent the External Examiner Handbook, which seemed to cover everything I needed to know about this.

9. **Did you receive appropriate documentation relating to the programmes and/or parts of programmes for which you have responsibility, e.g. programme specifications or module handbooks?**

- *The coherence of the policies and procedures relating to external examiners and whether they match the explicit roles they are asked to perform.*

I was sent the School of Computing Undergraduate Student Handbook, which again was very useful for the purpose of familiarising myself with the degree structures and module content. Nothing else was needed really.

10. **Was sufficient assessed/examination work made available to enable you to have confidence in your evaluation of the standard of student work?**

I was sent draft papers for scrutiny during the year, and before the exam board in June I was given the chance to look at a wide range of exam script and project work. I had expected that I would be asked to look at the work of particular individuals, but instead was given free rein to browse amongst the complete set of scripts and projects. This is fine in principle, but I think in some ways it would have been preferable to have been directed to look at particular cases as well.

11. **Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners?**

Yes – absolutely fine. All students were given due consideration and any problems dealt with in a fair and constructive way.

12. **Were appropriate procedures in place to give due consideration to mitigating circumstances and medical evidence?**

Yes, this all seems to work smoothly.

## **For Examiners involved in Mentoring Arrangements**

*If you have acted as a mentor to a new external examiner or have received mentor support please comment here on the arrangements.*

## **Other Comments**

*Please use this box if you wish to make any further comments not covered elsewhere on the form.*

Overall, I was impressed by the quality of the courses and the students, and the professionalism of the staff.

I have two particular observations which I did mention in my oral report at the end of the exam board but which are worth repeating here:

- Although I understand that the marking of scripts is checked by a third party, and signed off as having been checked, there is little evidence as to the nature of the checking that is done. On one script I found half a page of work that appeared not to have been marked at all, and drew this to the attention of the exams officer; subsequently a small number of extra marks were awarded for this part. It is hard to be sure that there might not have been other instances of this sort of thing that remained undiscovered, and for this reason I would recommend a system by which the person checking a script does not just sign it off on the cover sheet but explicitly marks each page as having been checked (in Exeter we use the convention that the main marker uses red, the checker uses green).
- There is a difficulty in assessing whether the marks on any particular module are unduly high or low. At the meeting we went through each module and noted the variation in mean and median marks and the failure rate, but there did not

seem to be any systematic way of comparing modules. A module might have very high mean, for example, for several different reasons: the paper may have been too easy, it may have been marked too generously, or it might be that this particular option was chosen by abler students. In either of the first two cases there might be an argument for adjusting the marks downward (although I note that this kind of moderation or scaling was not in fact done in any case), but this would be inappropriate in the third case. To distinguish these cases, I recommend the use of a scatter plot correlating the performance of each individual student taking the module with their average performance over the stage.

A third point which I did not mention is that there is a lack of uniformity in the way markers annotate the scripts. It is very helpful for anyone checking a script if the subtotal for each part of a question is clearly shown, distinct from any marks contributing to this. Many of the markers do adhere to this practice, but some do not, making it harder to check how the marking has been done.

School of Computing

University of Leeds  
Leeds LS2 9JT

Academic Quality and Standards Team  
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UNIVERSITY OF LEEDS

07 February 2012

Dear

Thank you for completing the external examiner report for last session and the supportive comments you have made on our programmes and procedures.

In response to your comment on the checking of scripts, we have now introduced the practice of module assessors adding their initials to the scripts they have checked and reminded staff that all pages of exam scripts should be clearly marked.

You also raised a concern over the difficulty in assessing whether marks for an individual module are unduly high or low. The School's Taught Student Education have agreed that we should introduce a system to do this and discussed a number of possible options. We have now started to discuss this with other Schools in the Faculty of Engineering to find an appropriate solution that could be implemented for next session.

Yours sincerely

Head of School