

**The University of Leeds****EXTERNAL EXAMINER'S REPORT**

ACADEMIC YEAR: 2011– 2012

**Part A: General Information****Subject area and awards being examined**

Faculty / School of:	Engineering / Civil Engineering
Subject(s):	<i>Environmental Engineering &amp; Project Management</i>
Programme(s) / Module(s):	Advanced Water Engineering; Environment & Health Management; Integrated Water Resources Management; Natural Wastewater Treatment & Reuse; The Management of Projects; Wastewater & Organic Waste Management; Research Project
Awards (e.g. BA/BSc/MSc etc):	MSc

**Completed report**

The completed report should be attached to an e-mail and sent as soon as possible, and no later than six 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?*

Not available, as previous EE did not submit.

**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

**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 ILOs were entirely appropriate for this specialised Master's course, which was logically organised for delivery in Semesters. However, the 4 x 15 Credit modules in Semester 2 might be better delivered as 2 x 30 Credit modules, to complement Semester 1 delivery. I was pleased to see the two Semester 1 modules delivered in sequential 4-week blocks, as I think this allows deeper learning and increased flexibility of delivery and I would encourage the team to adopt this practice for Semester 2.
- Standards of achievement were entirely consistent with a taught Master's course (QAA Level 7).

**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.*

- N/A

**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.*

- The use of coursework and an exam for each module is commended, as it allows students with strengths in either area to demonstrate their abilities. However, except in the Research Project module where marker report sheets were provided, I did not see evidence of moderation or second (double) marking in the samples of work that I had time to view. Nevertheless, the Project Supervisor and 2<sup>nd</sup> Marker marks were not entered individually on the module marks sheet, only the agreed mark was entered, confusingly in both columns 1 and 2, rather than each mark separately with the agreed mark in column 3 (which at present is inevitably the same as in columns 1 and 2). I was also confused by another module marks sheet, where the weighting was different (/20) to that indicated on the marked coursework (/40), so I queried the algorithm and it was explained adequately. However, it would be useful to have each piece of coursework marked as a %, with the weighting given on the marks summary sheet in a row near the top. This additional piece of information would avoid wasting time trying to resolve a non-problem and thus allow more time for ensuring that the students' work was fairly marked. It would also be useful to record the individual exam question marks on the module summary sheets. Therefore, I would strongly recommend that the module marks summary sheets are amended in this way to assist clarity. As for moderation or second (double) marking, which is recommended by QAA (e.g. <http://tinyurl.com/QAA-Assessment>), I suggest that this is done for any student at or near a borderline for the module, where a small change in mark might make a big difference in outcome. This should not be too onerous a task, as relatively few students normally end up in this position, but it would ensure the fairest outcome for such students and help to ensure that the current high standards are maintained. It would also be useful to have a summary sheet showing each module Mean and Standard Deviation, as it took me a while to compile this information before I could decide which modules to concentrate on, when I realised that one in particular was significantly different to the rest. This particular module was the only one that concerned me, having a failure rate of nearly 40% (9/23). This indicates that either the content is too demanding or the assessment is too tough. The classification of awards was clearly explained, both verbally and in writing, but it was confusing to see undergraduate classifications on the module summary sheets. Given the number of Master's courses offered by the University, I would have thought it worthwhile to have a separate system for indicating Master's level grades. Nonetheless, the appropriate Master's grades were used on the Exam Board paperwork.
- This cohort of students clearly included many strong candidates, with the majority achieving a Merit or Distinction. Whilst indicative of recruiting strong candidates from a healthy number of applicants (approximately 450), it is also indicative of strong teaching, deep learning, and robust assessment.

**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.*

- Given the wide range of assessments across the modules, the use of formal exams to help assess each module, and the possibilities to demonstrate their higher-level abilities provided by the 60 Credit Research Project, all students were given adequate opportunity to demonstrate individual achievement of the Aims and ILQs.
- The majority of the students demonstrated a strong performance across the breadth of this challenging course. Only two students had marginal fails or fails in two modules, with about one-third marginally failing or failing one module (8/23; excluding the two PT students, neither of whom had any failed modules). I therefore consider that the students were a strong cohort and benefitted from this industrially-relevant course that prepares them for employment in the water industry. Four students, including one PT, were granted extensions on their project report submission, which is due in time to allow them to graduate with the rest of the cohort. These four students had their mitigating circumstances considered in confidence and I believe that they were treated fairly.

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. **Please comment on 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, as this is my first year as EE.

7. **Please comment on 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.*

Each module showed evidence of content informed by the research of staff delivering them, for example monitoring air for various microorganisms in the Environment & Health Management module. The Research Project module is especially strong in this area and this year, apparently for the first time, results arising from at least one student project will be presented at an international conference.

#### **For Examiners involved in mentoring arrangements**

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

N/A

**9. 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 provided with a printed copy of the External Examiner Handbook 2011-2012 well in advance of my visit, which provided the necessary information for me to carry out my duties. As I am new to external examining Master's courses, I also found the [HEA Handbook for External Examining](#) extremely useful.

**10. 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, marking criteria?**

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

- I received a copy of the School's booklet on Postgraduate Master's Course, which included two pages of detail on this course. Copies of the programme specification or module handbooks would be useful for next year, as would a copy of the marking criteria (e.g. marking scale and relevant descriptors).
- The HEA Handbook suggests that EEs should also be provided with documentation on the policy and practice for disabled students, as well as guidelines on plagiarism (although it was explained to me during the visit that Turnitin was set up to indicate 0% Similarity when it was actually < 20%). If these documents are available, links to them or a printed copy would be useful for completeness.

**11. Were you provided with all draft examination papers/assessments? Was the nature and level of the questions appropriate? If not, were suitable arrangements made to consider your comments?**

Yes, I was provided with all draft exam papers but not the coursework assessments, which I would like to see next year after any internal moderation step.

The nature and level of the questions was appropriate in most cases. I did make comments on some draft papers and would like to see the internal examiner's responses next year.

I would also like to see all exam Qs typed clearly, rather than some this year that were poor photocopies, cut and paste jobs, or amended by hand.

One copy of the Exam paper, rather than multiple copies, is sufficient for each module box containing the Exam scripts but I would also like a copy of the relevant "model answer" that was sent with the draft Exam papers.

**12. Was sufficient assessed / examined work made available to enable you to have confidence in your evaluation of the standard of student work? Were the scripts clearly marked/annotated?**

I am confident that all examination scripts and all submitted project reports were available for scrutiny, as well as samples of all coursework assignments (on paper or in electronic format: CD, memory stick, or VLE). However, I would like to see full samples for all modules next year, i.e. they should include work from all levels of performance. One unit in particular this year only provided two samples, one marked at 65% and the other of 75%, even though the mark summary sheet for the module indicated a wider range of performance.

In some cases (exam scripts and coursework), there could have been clearer indications of where work was correct or incorrect. Sometimes it was difficult to tell what was meant by e.g. a simple red line down the side of a section of work.

**13. Was the choice of subjects for dissertations appropriate? Was the method and standard of assessment appropriate?**

In terms of Research Project topic, I did notice that a large number involved aspects of algal culture, either for oil production related to biodiesel manufacture or biomass production for anaerobic digestion. Whilst these areas of sustainable fuel production are important and aligned with national priorities, I did wonder whether there were a few too many offered in this area to the detriment of other areas relevant to the course and teaching team. However, I do recognise that this feature may be related to staffing and staff availability.

The method and standard of assessment was appropriate in most cases. Where the Supervisor and Second Marker differed by >10%, a Third Marker was used. This individual examined all Research Project reports in this category, to ensure equivalence of marking. This approach is commended but the three marks should appear on the module summary sheet, together with the mean and SD for the Supervisor, Second Marker, and Agreed marks columns, to help identify any important differences.

In some cases, there were rather brief comments on the Research Project report, which did not always justify the mark awarded. I suggest that marks are justified by appropriate comments, perhaps as simple bullet points to minimise the additional work involved.

I would like to be sent the Abstract for each project before I visit next year, preferably with the module summary sheet showing Supervisor and 2<sup>nd</sup> Marker marks, so that I have sufficient time to do them justice and can identify any issues for discussion prior to my visit.

**14. Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners? Were you able to attend the meeting? Were you satisfied with the recommendations of the Board?**

The administrative arrangements were exemplary and the individual concerned is congratulated on her professionalism, attention to detail, clear understanding of the Regulations, and cheerful disposition.

I was able to attend the Exam Board.

I was entirely satisfied with the recommendations of the Board and felt that those students with failed modules or near borderlines were dealt with adequately and fairly. There was adequate discussion of whether or not the module with a lower Mean mark and larger Standard Deviation than the others had caused some students to miss out on a Distinction or Merit. However, given the fact that this was only a 15 Credit module, it was felt that this was probably not the case. I was pleased to hear that staff teaching and assessing this module will be advised to review their approach for next year, for which a Standard Assessment Scale with Descriptors will help.

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

Yes, appropriate procedures are in place to consider mitigating circumstances in confidence, as mentioned in Section 4.

**Other comments**

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

I feel that I have had adequate opportunities in the rest of this form to discharge my duties and provide appropriate feedback and constructive criticism for the course management and teaching team to implement or consider for action in the coming year.

Although I had an opportunity to meet current students informally, only one out of four available attended. Nevertheless, this was a useful meeting and the student gave me some excellent feedback about his perceptions of the course. Overall, he was very satisfied although he did point out that some of his peers did not have such an outstanding Research Project supervisor as his.

Although it is a busy day, I wonder whether it might be possible for a similar informal meeting with staff who teach the course, to help me to ascertain whether there are any institutional issues that require attention.

School of Civil Engineering

University of Leeds  
Leeds LS2 9JT



**UNIVERSITY OF LEEDS**

8 October 2012

Dear

**MSc(Eng) Environmental Engineering and Project Management**

Thank you for all the time and effort you have put into your role as External Examiner on this Master's course and for your very useful and comprehensive comments in your report. We are very pleased with the positive observations you have made about the quality of the course, the staff, the course contents and the student experience.

At the same time we have noted the comments you have made identifying defects in our systems and procedures and your suggestions on how we might improve these for future cohorts. We will shortly be holding a review meeting to cover these points and to propose appropriate solutions. Whilst I would not wish to anticipate the outcome of that meeting, I can provide assurance that any decisions will be fully minuted and copies of the Minutes sent to you. The minutes will form an Agenda item for our next examiner's meeting in September 2013. I will also ensure you are kept fully informed of the individual changes we make over the progress of this academic year.

We look forward to working with you over the next few years and I am confident that your advice and input will help maintain the reputation and integrity of this Master's course.

Yours sincerely