

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:	Process, Environment and Materials Engineering
Subject(s):	
Programme(s) / Module(s):	Energy and Environmental Engineering
Awards (e.g. BA/BSc/MSc etc):	MEng, BEng

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.

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

Some issues are raised under the comment section

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 taught programme provides students with the appropriate levels of engineering education associated with the fundamental principles of Energy and Environmental engineering. The structure and content of the course allows students to develop their problem solving ability and to gain a greater understanding of knowledge, theory and issues relevant to their chosen subject area.

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 aims and ILOs are appropriate and are similar to MEng/BEng degrees offered at other Universities.

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 assessment methods for the taught programme are varied and suitable for the type of degree offered. These range design and research project work through to examinations and associated coursework. The assessment is well placed throughout the programme and the student progression and award criteria is clearly understood by 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.*

The examination scripts, coursework, design project and research project were assessed. The examination papers were at a level where students of differing abilities could attempt the questions and their ability would be reflected in the overall assessment mark. The individual projects examined were also at an appropriate level for this type of degree.

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.

This is the first year of my appointment and it would be difficult to comment on the previous year's activities.

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.

The influence of the research on teaching and learning is clearly evident in the 4year where the individual project is usually attached to a research group and the modules offered are associated with individual lecturer research areas. Again this is traditional for the type of course offered and is in line with other degree schemes offered within the University sector.

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.*

All the necessary guidelines and all other relevant information for my role as the external examiner was received in good time.

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.*

Received all relevant documentation

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?

All draft examination papers and model solutions were received for comment and review. The nature and level of the questions were appropriate for the course. Unable to comment of suitability of the arrangements for consideration of my comments since there was no feedback given. This will be further addressed in the comment section

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?

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

The choice of subjects offered for dissertations offered students the opportunity to work in a range of research theme which was both topical and challenging. The method and standard of assessment was both fair and appropriate giving the student a wide range of assessments to complete.

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?

I was present at the Full board of examiners meeting. The arrangements of the Board, and its operation was exemplary and the recommendations made for each student were satisfactory.

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

Yes, this was undertaken by a small committee to which the outcomes were highlighted at the full board. This was seen as appropriate since many other universities now adopt the same procedure.

Other comments

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

I found the internal quality assurance and mark traceability poor and a number of issues arose which I highlighted to the Board and will be categorised as follows:

- 1) The solutions offered per examination are not broken down within particular sections so it is difficult to judge how a particular mark has been awarded. This is true for both numerical and essay type questions. The external examiner has had experience of <> colleagues being ill during the examination period to which marking had to be covered by another member of staff. Having a well structured marking scheme considerable helped the process. This is strongly recommended that having a well structure marking scheme be adopted. Furthermore, it was evident that some Leeds examiners simply used existing OHP's as their solution with numbers attached. This is poor practice and shows little care by the examiner.
- 2) The external examiner made a number of comments about both examination papers and solutions. There was no feedback mechanism in place to tell whether or not these comments were implemented or simply ignored.
- 3) There was no module marking spread sheets attached to individual modules so it was difficult to determine if the script mark was transferred properly. Hence a lack of traceability was seen.

- 4) Verification of the scripts was difficult to observe. Sometimes it was clear that verification had been undertaken and sometimes not. A proforma is required to make this procedure more robust.
- 5) There was an example where an arithmetic error was found and highlighted, however there was no indication on the script whether or not this had been corrected and the appropriate mark transferred.
- 6) There were scripts that had no indication of the total mark on the front of the script and hence what mark was being transferred.
- 7) This is also true within the body of the script, there were examples of totals not included at the end of the question solution.
- 8) There were scripts where it was difficult to assess whether or not the last page had been marked. Generally throughout the University system, each page is marked in red and every section is marked. Then for the verification process each verified page is marked in green. Where there are any errors picked up these are highlighted on the front sheet and signed by the module leader. The examination spreadsheet should also be verified and signed off.
- 9) There was one script that had attempted 4 questions where 3 was required. The fourth was not marked. All questions should be marked and the best three should be put forward.
- 10) As an observation on PEME 5220 question 3 and 4 had a negative marking scheme. This is the first time I have observed this and does not follow the usual convention of positive marking. There was no indication on the examination rubric that this would be undertaken.
- 11) It is also noted that the individual report is only worth 45% of the mark. It is thought that the percentage set for both the research paper and continuous assessment could be reduced to 5% each and then the final report could be made 50%.
- 12) The mean and standard deviation for the current year was issued. To track any changes in exam performance it is recommended that the external examiner has a copy of the previous year's module performances as well.

Faculty of Engineering

School of Process, Environmental and Materials Engineering
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UNIVERSITY OF LEEDS

6 July 2012

Dear

External Examiner's Report 2011/12 – MEng/BEng Energy and Environmental Engineering

Thank you for your External Examiner's Report for our MEng/BEng degree programme in Energy and Environmental Engineering. I have copied this to our Director of Student Education () and the Head of Process Engineering (), and their comments are incorporated with mine below.

Firstly, thank you for the complimentary remarks about the content of the programme and the quality that we achieve. Your comments about the variety, relevance and quality of projects are also much appreciated, as are those about the arrangements and procedures used at the Examinations Board.

I would like to respond to your specific comments (using your numbering system) as follows:

1. We are aware of some variation in the quality of specimen examination answers. Most staff do provide excellent specimen answers, although a few are much less diligent. We are endeavouring to address this, so hopefully things will improve for next year.
2. We always incorporate modifications requested by External Examiners into the final papers where appropriate and normally notify them by email that this has been done. The fact that you did not receive confirmation of this was an oversight on our part.
3. Although all staff have spreadsheets for individual modules, not all have supplied them in the past for scrutiny by the External Examiners. We will be putting procedures in place to rectify this for next year in order to improve traceability.
4. Again, we will be reviewing our procedures and will be providing even better QA as far as script marking and verification are concerned.
5. All arithmetic errors were transferred to, and corrected on, relevant spreadsheets by module leaders, although we accept that, in this case, it was not clear that this had occurred. Again, we will be reviewing our procedures to negate this.
6. All staff are requested to enter all marks on the front of each script, although you found a few examples where this was not the case. Subsequent investigations have provided

assurance that the correct marks were entered in the spreadsheet, but we will introduce stricter procedures to ensure that this occurs in future.

7. As this also applied to a few individual scripts where question totals were not incorporated within the body of the script, once again we will be reviewing our procedures to rectify this.
8. All scripts are checked arithmetically and re-checked by module leaders. Again, we will review our procedures to ensure a more robust system in future.
9. School policy is to mark all questions, then use the best 3 answers in such a situation. This will be reiterated to all staff.
10. PEME5220M has used a partial system of negative marking for some time and, apparently, students are made aware of it. However, this module is discontinued for 2012/13, so the problem will not arise again.
11. We will look at the possibility of re-weighting individual sections of PEME5200M, with a view to making the final report worth 50%.
12. Statistics for modules in previous years will be provided, as requested.

Once again, many thanks for your efforts this year. This concludes your duties for the MEng/BEng programme for 2011/12, but we look forward to seeing you again in October for the MSc Examinations Board.

Yours sincerely

Head of School.

cc. AQST