

**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> Process, Environmental and Materials Engineering	<b>Subject(s):</b> Chemical Engineering
<b>Programme(s) / Module(s):</b> Chemical Engineering, Chemical and Minerals Engineering, Chemical and Energy Engineering, Chemical Engineering (IND), Chemical and Pharmaceutical Engineering, Pharmaceutical Chemical Engineering	<b>awards: (e.g. BA/BSc/MSc etc.)</b> BEng/MEng

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.*

There were no areas requiring urgent action.

***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?*

N/A

***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 learning outcomes are strongly focused on traditional chemical engineering and the learning outcomes are what would be expected for a course in the discipline. They are governed to a large degree by the requirements of the Institution. The programme recently passed through the accreditation process and as a result all the systems and modules have been reviewed in detail.

- *The extent to which standards are appropriate for the award or award element under consideration.*

The standards are appropriate for the awards being considered.

### 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.*

Yes

### 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 programme has a good balance between coursework/project work assessment and formal examination. The students as you would expect show a range of marks and results but nothing to suggest that the teaching and learning is deficient.

- *The quality of teaching, learning and assessment methods that may be indicated by student performance.*

The marks for all modules were within the range one would expect for the level of the modules. Only one module was mentioned by the students and that was Advances in Chemical Engineering PEME 5340. The students found it interesting but intense and a heavy workload. The marks do not reflect the comments as the average and spread look reasonable.

### 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 student's work was examined and found to relate closely to the standards in other academic courses with which I am familiar.

- *The strengths and weaknesses of the students as a cohort.*

The students appear to be well rounded chemical engineers. There was a strong background in modelling particularly in the final year research programme. The students commented that more practical and /or industrial visits may be helpful in some areas.

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

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### 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.*

There were no significant changes to the programme this year.

### 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 strongest link to research is the module discussed in section 3. This is a course in which the students are introduced to the research of the School and lectured with enthusiasm but has a heavy work load (according to the students). Obviously the research projects of the MEng students reflect the research interest of the School.

## **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.*

Yes

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.*

Yes

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

Yes

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

Yes

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

Yes

### ***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.*

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### ***Other Comments***

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

The consideration of borderline cases and in particular those which had exit velocity criteria applied was difficult this year. The application of the Universities regulations to the cases considered lead to much discussion. The School generally favoured the results of the process but never unanimously. I could find no fault in the process adopted by the School and so support their decision but it did not seem correct that students who enter the process of exit velocity analysis can leapfrog higher mean scoring students in terms of degree classification nor that first class degrees can be awarded with a 66.2% overall average.

Faculty of Engineering

School of Process, Environmental and Materials Engineering  
University of Leeds  
Leeds LS2 9JT, UK



UNIVERSITY OF LEEDS

8 July 2011

Dear

**External Examiner's Report 2010/11 – MEng/BEng Chemical Engineering,  
Chemical and Energy/Minerals/Pharmaceutical Engineering,  
Pharmaceutical Chemical Engineering**

Thank you for your External Examiner's Report for our MEng/BEng degree programmes in Chemical Engineering, Chemical and Energy/Minerals/Pharmaceutical Engineering and Pharmaceutical Chemical Engineering. I have copied this to the Director of Learning and Teaching and the Head of Process Engineering and their comments are incorporated with mine below.

Your general remarks about the content of the programmes and the quality and standards that we achieve and, hopefully, maintain are very welcome. In relation to your specific comments:

- **PEME5340M Advances in Chemical Engineering** – this is a relatively new module, designed to develop student knowledge in current cutting-edge research within the School. As you point out, students find it interesting but intense, not surprising since it is designed to stretch them. The distribution of marks does not suggest any significant problems, but like any new module we will keep this under review.
- **Industrial visits** - we are aware of this and are aiming to improve matters next year. However, you will appreciate that organising visits for large student cohorts is not always easy and is limited to the few companies that are willing to host such large groups.
- **Exit velocity** – many School staff also have concerns about the exit velocity rule and its impact on the classification process. As mentioned at the Examinations Board, this regulation is being phased out by the University and will disappear after next year.

Once again, many thanks for your efforts this year and we look forward to seeing you again for your final visit next June.