

The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2016-17

Part A: General Information

Subject area and awards being examined

<i>Faculty / School of:</i>	Faculty of Engineering, School of Chemical and Process Engineering
<i>Subject(s):</i>	<i>Chemical Engineering, Chemical and Energy Engineering, Chemical and Materials Engineering, Chemical and Nuclear Engineering, Chemical and Pharmaceutical Engineering, Food Process Engineering</i>
<i>Programme(s) / Module(s):</i>	MEng and BEng version of above programmes (it is a lot of individual programmes and potential modules so I haven't listed them).
<i>Awards (e.g. BA/BSc/MSc etc):</i>	BEng, MEng and Alternative Qualifications

Part B: Comments for the Institution on the Examination Process and Standards

Points of innovation and/or good practice

Please highlight areas of innovation or good practice within the programmes or processes you have been involved with in this box.
 A lot of exam questions were marked out of 20, I felt this led to really good consistency across different module exam papers and easy to see the credit workload balance and timings for the exams.
 Ability to offer individual MEng research projects, it is excellent to be able to have the range of projects on offer.

Enhancements made from the previous year

Please highlight any enhancements made to the programme(s) or processes over the past year in this box.
 This is my first year acting as external examiner

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
 No.

For Examiners in the first year of appointment

1.	Were you provided with an External Examiners Handbook?	Y / N
2.	Were you provided with copies of previous relevant External Examiners' reports and the response of the School to these?	Y / N
3.	Were you provided with an External Examiner Mentor?	Y / N

For (2) and (3) above I have marked N, however I didn't feel anything was missing, I am familiar with the University examining process, and was given more than sufficient support to answer any queries I had in the run up and during the examiners visit. PTR

For Examiners completing their term of appointment

4.	Have you observed improvements in the programme(s) over the period of your appointment?	Y / N
5.	Has the school responded to comments and recommendations you have made?	Y / N
6.	Where recommendations have not been implemented, did the school provide clear reasons for this?	Y / N
7.	Have you acted as an External Examiner Mentor?	Y / N

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

Standards

8.	Is the overall programme structure coherent and appropriate for the level of study?	<u>Y</u> / N
9.	Does the programme structure allow the programme aims and intended learning outcomes to be met?	<u>Y</u> / N
10.	Are the programme aims and intended learning outcomes commensurate with the level of award?	<u>Y</u> / N
11.	Did the Aims and ILOs meet the expectations of the national subject benchmark (where relevant)?	<u>Y</u> / N
12.	Is the programme(s) comparable with similar programmes at other institutions?	<u>Y</u> / N
<p>Please use this box to explain your overall impression of the programme structure, design, aims and intended learning outcomes.</p> <p>The programmes offered are clearly closely aligned with the IChemE accreditation guidance (as the relevant courses are accredited), so the course structures and modules felt familiar.</p>		
13.	Is the influence of research on the curriculum and learning and teaching clear?	<u>Y</u> / N
<p>Please explain how this is/could be achieved (examples might include: curriculum design informed by current research in the subject; practice informed by research; students undertaking research)</p> <p>In the range of design and research projects offered it is clear that the research strengths of the school are used.</p>		
14.	Does the programme form part of an Integrated PhD?	Y / <u>N</u>
<p>Please comment on the appropriateness of the programme as training for a PhD:</p>		
15.	Does the programme include clinical practice components?	Y / <u>N</u>
<p>Please comment on the learning and assessment of practice components of the curriculum here:</p>		
16.	Is the programme accredited by a Professional or Statutory Regulatory Body (PSRB)?	<u>Y</u> / N
<p>Please comment on the value of, and the programme's ability to meet, PSRB requirements here:</p> <p>The course (in its primary Chemical Engineering incarnation) is strongly aligned to the IChemE guidelines, so I would expect it to meet these requirements with ease.</p>		

Assessment and Feedback

17.	Does the programme design clearly align intended learning outcomes with assessment?	<u>Y</u> / N
<p>Please comment on the assessment methods and the appropriateness of these to the ILOs, in particular: 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.</p> <p>I felt in places the course was over assessed, but the few students I spoke to didn't feel this. A good balance between coursework and examination is presented and there is plenty of opportunity for students to get feedback on both formative and summative assessed work. There was clear alignment between assessment and ILOs.</p>		

18.	Is the design and structure of the assessment methods appropriate to the level of award?	<u>Y</u> / N
19.	Were students given adequate opportunity to demonstrate their achievement of the programme aims and intended learning outcomes?	<u>Y</u> / N
<p><i>Please comment on 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:</i> The standard of work reviewed was comparable to work produced on similar programmes at my home institution . In particular the ability to offer individual research projects to the MEng year I thought was excellent.</p>		
<p><i>Please use this box to provide any additional comments you would like to make in relation to assessment and feedback:</i></p>		

The Progression and Awards Process

20.	Were you provided with guidance relating to the External Examiners role, powers and responsibilities in the examination process?	<u>Y</u> / N
21.	Was the progression and award guidance provided sufficient for you to act effectively as an External Examiner?	<u>Y</u> / N
22.	Did you receive appropriate programme documentation for your area(s) of responsibility?	<u>Y</u> / N
23.	Did you receive appropriate module documentation for your area(s) of responsibility?	<u>Y</u> / N
24.	Did you receive full details of marking criteria applicable to your area(s) of responsibility?	<u>Y</u> / N
25.	Were you provided with all draft examination papers/assessments?	<u>Y</u> / N
26.	Was the nature and level of the assessment questions appropriate?	<u>Y</u> / N
27.	Were suitable arrangements made to consider your comments on assessment questions?	<u>Y</u> / N
28.	Was sufficient assessed work made available to enable you to have confidence in your evaluation of the standard of student work?	<u>Y</u> / N
29.	Were the examination scripts clearly marked/annotated?	<u>Y</u> / N
30.	Was the choice of subjects for final year projects and/or dissertations appropriate?	<u>Y</u> / N
31.	Was the method and standard of assessment appropriate for the final year projects and/or dissertations?	<u>Y</u> / N
32.	Were the administrative arrangements satisfactory for the whole process, including the operation of the Progression and Awards Board?	<u>Y</u> / N
33.	Were you able to attend the Progression and Awards Board meeting?	<u>Y</u> / N
34.	Were you satisfied with the recommendations of the Progression and Awards Board?	<u>Y</u> / N
35.	Were you satisfied with the way decisions from the School Special Circumstances meeting were communicated to the Progression and Awards Board?	<u>Y</u> / N
<p><i>Please use this box to provide any additional comments you would like to make on the questions above:</i> related to (29) although the majority of exam papers were fine it would be useful to be even more clear (as an external checking more on the QA side than correctness of marking) that independent checking has been carried out.</p>		

Other comments

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

I would commend the school overall on their assessment processes. The students I met associated with the various courses were very complimentary about the staff and the programmes, and particularly the availability and openness of staff to answer question and queries about the course and beyond. In meeting with staff members I also felt made very welcome and the staff were very open to queries and willing to explain what went on in their courses.

A few points to consider not all directly related to the examinations/assessment side

- (i) Some modules/programmes only have very small numbers on them, so may wish to consider their viability. For some of these it became apparent the same parent course was used to teach different module codes, which although a little confusing at the time may mean it is not a significant issue.
- (ii) Some modules appear to have a large amount of assessment, there may be a balance to be found here between providing students with feedback and guidance and staff and student time in marking and preparing assessment.
- (iii) In speaking with the students it was commented that a small minority of modules are not as well received, it may be worth considering having some form of staff peer mentoring/monitoring/support scheme where staff who deliver modules that are well received by the students support those staff with modules less well received. Related to this there was comments that for some modules the impact of module student feedback (via end of module questionnaires) was not reported on (e.g. complaints about a module, where still relevant to the next year taking that module). However the staff student committee had seen much more positive impact this year on how student raised issues had been considered.
- (iv) There was clearly some changes in process this year which meant that the degree award and other progress decisions are basically set by the students module results (unless some form on extenuating/mitigating circumstance). This is what I am familiar with anyway, but it did then feel that some of the reading out of names (which I think is a 'nice' thing for those graduating) was unnecessary for those progressing to the next year of study.
- (v) Linked to (iv) some further information on modules results (e.g. minutes of the internal meeting reviewing this aspect) would be useful, as it is these results now that set the degree/progression outcomes.
- (vi) I would also recommend (linked to 29 above) that there is very obvious process that exam papers have been checked (so not just a signed sheet on the front of all the papers), we have ended up with (say) the primary marker being in red and then the checker in green, on each page of the exam answer books. Having a consistent format of marks being in the left hand margin and then total marks for a question either being on the front or in a circle would also help the checking part.

Name of School and Head of School (or nominee)

Title and Name of Responder:

Position*:

Faculty / School of:

Address for communication:

Email:

Telephone:

Head of School	
Engineering/Chemical and Process Engineering	
University of Leeds Leeds LS2 9JT	

*If the individual responding to the report is not the Head of School please state their position within the School.

Completing the School response

The completed School response (including the full original report) should be attached to an e-mail and sent to the Pro-Dean for Student Education in the relevant Faculty. Following approval by the Pro-Dean for Student Education, the School must send the response (including the full original report) directly to the External Examiner. A copy must also be emailed to the Quality Assurance Team at qat@leeds.ac.uk. External Examiners should receive a formal response no later than six weeks after receipt of the original report.

Response to Points of innovation and/or good practice

We would like to thank the External Examiner for noting the good practice in terms of (i) the majority of exam questions being marked out of 20 and thereby ensuring consistency across different module exam papers; and (ii) the ability to offer individual MEng research projects across a diverse range of project areas.

Response to Enhancements made from the previous year

Not applicable as this was the first year of _____ serving as External Examiner.

Response to Matters for Urgent Attention

If any areas have been identified for urgent attention before the programme is offered again please provide a specific response to them here:

No areas were identified for urgent attention.

Response to questions 1-7 (and related comments)

Schools may provide a general response; however, where Examiners raise specific points these must be addressed individually:

Questions 1-3 are only applicable. _____ notes that although _____ was not provided with copies of previous, relevant External Examiners' reports, School responses or a mentor, _____ did not feel that either of these were necessary as is familiar with the University examination process and also _____ states that _____ received appropriate support in terms of queries being addressed both prior to the External Examiner meeting and during the visit itself. For clarification, the previous External Examiner did not provide any reports although these were requested a number of times by QA hence there were none to forward to _____

Standards**Response to questions 8 to 16 (and related comments)**

Schools may provide a general response; however, where Examiners raise specific points these must be addressed individually:

_____ confirms that _____ overall impression of the structure, design, aims and intended learning outcomes are that they are closely aligned with the IChemE accreditation guidelines and this is endorsed by the fact that the various programmes have been accredited by the IChemE. _____ notes that the programmes offered draw on the research strengths of the School through the range of design projects and research projects.

Assessment and Feedback

Response to questions 17 to 19 (and related comments)

Schools may provide a general response; however, where Examiners raise specific points these must be addressed individually:

felt that the course was potentially over assessed in parts but that this was not a concern raised by the students. commended the School on the good balance between coursework and examinations and sufficient opportunity for students to receive both formative and summative feedback. This balance is a result of the School having undertaken a review of student assessment following the analysis of the module reviews in the last academic year. This review resulted in and some of the summative assignments being changed to formative ones. This was primarily in those cases where formative assignments were testing the same learning outcomes as other assignments. For example, of the three HYSYS assignments within CAPE2040 (Process Modelling and Thermodynamics) module which were previously all formative, now one is summative with the other two being changed to formative. Group feedback was provided on the formative assessments but there was also the opportunity for students to receive individual feedback.

noted that the standard of work was comparable to that in the School of Chemical Engineering at the (home institution). reiterated that a real strength of the course was the ability to offer individual research projects.

The Progression and Awards Process

Response to questions 20-35 (and related comments)

Schools may provide a general response; however, where Examiners raise specific points these must be addressed individually:

The External Examiner raised an issue pertaining to Q29 (Were the examination scripts clearly marked/annotated).

felt that although the majority of exam papers were fine it would be beneficial to make it clearer that external checking had been performed. This is more with respect to addressing QA processes as opposed to correctness of marking and thus evidence that independent checking has been carried out is required. At the current time the checks that are performed relate to arithmetic checking. The process followed is that every script within a module is checked to ensure that (i) every page has been marked; (ii) marks inside the script are correctly added up and transferred to the outside correctly; and the final mark recorded is correct. All errors are recorded on a sheet specific to the module and these are then looked into by the Module Manager who will take the appropriate action in terms of any corrections to be made. The Module Manager signs off the module sheet when all is completed. It is recognised that although this process is in place, there is no evidence that the scripts have been through due process. The School will revise its current process and ensure that there is clear evidence that a script has been specifically checked, i.e. first marker in red and second marker in green.

Other comments

Response to items included in the 'Other Comments' section of the report

The School would like to thank for kind comments about the students, the staff and the programme. They are truly appreciated. A number of specific points are raised and these are addressed below individually:

- (i) The School recognises that there are programmes that have small numbers e.g. Chemical and Nuclear Engineering and hence some of the associated specialised modules have corresponding low numbers. This is an area that the School is currently reviewing to identify how to proceed. The drive behind the need to address this issue at this time is that the School wishes to have in place any changes to the programme structure prior to next accreditation visit in 2020. There are also a number of modules that are double badged and thus the combined number of students associated with these modules is significant, e.g. CAPE3331/5331M (6/29 students respectively). There are additionally modules with small numbers and again these are part of a review to assess how to proceed, i.e. if we close them down, what will they be replaced by to ensure the programme outcomes are not impacted.
- (ii) The issue around significant level of assessment on some modules has been recognised and as discussed under the response to Q17 to Q19, action has been taken to address this issue. The School is continuing to consider the level of assessment as there is an imbalance between modules and this is an

area which has been raised continually by the students and is reflected in a low score in the NSS. We have yet to achieve a balance between assessment and quality and timely feedback to the students. This is work in progress.

- (iii) The issue pertaining to a number of modules not being well received for various reasons and the failure to address module student feedback is an area that is slowly being addressed. However it is good to note that the students feel that there has been some progress at the Student-Staff meetings in terms of issues being addressed. The Head of School and Director of Student Education are addressing performance related issues through a number of mechanisms. The proposal for a staff peer mentoring/monitoring support scheme whereby staff who are commended for their delivery assist those struggling to deliver is one that the School Management Board will discuss as to whether this will address the poor delivery aspect.
- (iv) Changes have been made to the process including there being no discretion. The reading out of names of those progressing will be considered as to the value added prior to next year's exam board. The names of graduating students will continue to be read out.
- (v) The minutes of the internal meetings relating to module results and final degree awards will be made available in 2018.
- (vi) The updated process for the checking of exam scripts as described in the Section responding to Questions 20-35 will be followed in 2018 and this should remove any ambiguity that the marks have been checked, i.e. first marker in red and checker in green. Also the format re. marks in the left hand column and the total marks in a circle is the practice that should be adopted. This will be reinforced for next year to ensure all academic staff comply.