

The University of Leeds
EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2016-17

Part A: General Information

Subject area and awards being examined

Faculty / School of:	Faculty of Engineering / School of Mechanical Engineering
Subject(s):	Aeronautical & Aerospace Engineering
Programme(s) / Module(s):	BEng Aeronautical and Aerospace Engineering, MEng, BEng Aeronautical and Aerospace Engineering, BEng Aeronautical and Aerospace Engineering (Industrial) MEng, BEng Aeronautical and Aerospace Engineering (Industrial) Year 3 Placement MEng, BEng Aeronautical and Aerospace Engineering (Industrial) Year 4 Placement MEng, BEng Aeronautical and Aerospace Engineering (International) MSc Aerospace Engineering
Awards (e.g. BA/BSc/MSc etc):	MEng, BEng, MSc

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.

The students I met were particularly impressed with the opportunities they were given for industrial placements. They recognised that this was a feature of the provision which was particularly dependant on administrative and academic resources, but considered them very valuable.

Aeronautical Engineering candidates continue to benefit from access to the National Flying Laboratory facilities.

Enhancements made from the previous year

Please highlight any enhancements made to the programme(s) or processes over the past year in this box.

The process of blind-double-marking of all elements of the Level III Individual projects and Level IV Team project has been introduced. This is very welcome and feedback from the Teaching Team very positive.

External Examiners were sent responses to all the comments raised in assessment review. This effectively 'closes the loop' for the External Examiners and is very welcome.

The practice of identifying 'marginal fails' in projects reviewed after submission has been discontinued.

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

For Examiners in the first year of appointment

1.	Were you provided with an External Examiners Handbook?	Y / N
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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 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?	Y
9.	Does the programme structure allow the programme aims and intended learning outcomes to be met?	Y
10.	Are the programme aims and intended learning outcomes commensurate with the level of award?	Y
11.	Did the Aims and ILOs meet the expectations of the national subject benchmark (where relevant)?	Y
12.	Is the programme(s) comparable with similar programmes at other institutions?	Y

Please use this box to explain your overall impression of the programme structure, design, aims and intended learning outcomes.

The programme adopts a clear and fairly conventional overall structure. In common with several institutions offering similar provision, the range of optional modules offered in Year 4 is fairly limited. The programme aims and ILO's meet expected standards and compare favourably with those claimed by similar, high quality, institutions.

13.	Is the influence of research on the curriculum and learning and teaching clear?	Y
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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)

There is evidence, throughout elements of the programme for which I am familiar, of staff research activity influencing the curriculum. This includes student dissertations and the examples and methods used in assessments. The (small) group of students we spoke to were aware, through lecture content, of staff research activity and of how it related to their curriculum.

14.	Does the programme form part of an Integrated PhD?	N
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Please comment on the appropriateness of the programme as training for a PhD:

I am not aware of any elements of the programme(s) being part of a PhD, but clearly there are aspects of the M-Level provision for which this would be appropriate.

15.	Does the programme include clinical practice components?	N
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Please comment on the learning and assessment of practice components of the curriculum here:

16.	Is the programme accredited by a Professional or Statutory Regulatory Body (PSRB)?	Y
<i>Please comment on the value of, and the programme's ability to meet, PSRB requirements here:</i>		

Assessment and Feedback

17.	Does the programme design clearly align intended learning outcomes with assessment?	Y
<p><i>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.</i></p> <p><i>The programme ILOs compare favourably with similar provision offered at other high quality institutions. The structure and design of the assessment methods are appropriate for the ILO's. Arrangements for marking are clear and the classification of the awards well documented.</i></p> <p><i>I note that, in common with other high quality institutions, there are no longer discretionary boundaries (other than for cases of mitigating circumstances) for the final award.</i></p>		
18.	Is the design and structure of the assessment methods appropriate to the level of award?	Y
19.	Were students given adequate opportunity to demonstrate their achievement of the programme aims and intended learning outcomes?	Y
<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></p> <p><i>Student performance is considered to be on a par with that of those in similar high quality institutions. Whilst being difficult to assess, there would not appear to be any particular weaknesses in the cohort. The (small) group of students we met were very positive about the course and the institution</i></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> <p><i>minor comment in relation to para. 18 above:</i></p> <p><i>(i) in a few instances examination marks of 100% were awarded at M level. The Teaching Team may wish to consider if such an assessment had an acceptable balance between recollection and understanding</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?	Y
21.	Was the progression and award guidance provided sufficient for you to act effectively as an External Examiner?	Y
22.	Did you receive appropriate programme documentation for your area(s) of responsibility?	Y
23.	Did you receive appropriate module documentation for your area(s) of responsibility?	Y
24.	Did you receive full details of marking criteria applicable to your area(s) of responsibility?	Y
25.	Were you provided with all draft examination papers/assessments?	Y
26.	Was the nature and level of the assessment questions appropriate?	Y
27.	Were suitable arrangements made to consider your comments on assessment questions?	Y

28.	Was sufficient assessed work made available to enable you to have confidence in your evaluation of the standard of student work?	Y
29.	Were the examination scripts clearly marked/annotated?	Y
30.	Was the choice of subjects for final year projects and/or dissertations appropriate?	Y
31.	Was the method and standard of assessment appropriate for the final year projects and/or dissertations?	Y
32.	Were the administrative arrangements satisfactory for the whole process, including the operation of the Progression and Awards Board?	Y
33.	Were you able to attend the Progression and Awards Board meeting?	Y
34.	Were you satisfied with the recommendations of the Progression and Awards Board?	Y
35.	Were you satisfied with the way decisions from the School Special Circumstances meeting were communicated to the Progression and Awards Board?	Y

Please use this box to provide any additional comments you would like to make on the questions above:

minor comment in relation to para. 29 above:

- (i) some examination scripts had been annotated by the invigilator to indicate when a candidate had left the examination early – this information should not be available to the marker(s) and could be collated separately.*
- (ii) evidence of 2nd marker input to examination scripts was not always clear / consistent.*
- (iii) in a few instances markers awarded ½ marks, this is unusual in comparable institutions and the Teaching Team may wish to consider if only integer marks should be used to avoid any confusion.*

comment in relation to para. 30 above:

- (i) The specific arrangements made for the External Examiners to review marked assessments, projects etc, ahead of the Examiners Board – without having to navigate the VLE - were particularly helpful and very much appreciated..*

note in relation to para. 34 above:

- (i) the Teaching Team might find it useful to know that the University's regulations in relation to plagiarism appear to be slightly more lenient than some comparable institutions that I am aware of.*

Other comments

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

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	
<i>Mechanical Engineering</i>	
School of Mechanical 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 are grateful for the positive comments on our double blind marking and how our research influences the curriculum.

Response to Enhancements made from the previous year

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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:

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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:

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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:

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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:

- Some marks at level M were 100% - we feel that these marks are unusual and if this problem persists in the coming exam papers, we will carry out a detailed investigation into whether we need to modify our assessment on these modules.
- Need to provide evidence of 2nd marker input to exam papers – we do not double mark exam papers but will ensure that all arithmetic checking sheets are included with exam papers.
- There are a few instances of 0.5 marks being awarded – we will remind colleagues that only integer marks should be returned.

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:

- Plagiarism regulations appear to be slightly more lenient than in comparable institutions – we will focus on ensuring that all university regulations are applied uniformly.
- Information about candidates leaving early should not be available to examiners – this is a university regulation.

Other comments

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

The University of Leeds
EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2016– 2017

QAT Received 30/04/2018

Part A: General Information

Subject area and awards being examined

Faculty / School of:	Mechanical Engineering
Subject(s):	
Programme(s) / Module(s):	Advanced Mechanical Engineering, Automotive Engineering, Oilfield Corrosion Engineering, Aerospace Engineering.
Awards (e.g. BA/BSc/MSc etc):	MSc

Name and home Institution / affiliation of Examiner

Title and Name of Examiner:

Institution:

Address for communication:

Email:

Telephone:

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 Quality Assurance**
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?

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

The content of the programme has not changed substantially over the 4 years of tenure, but the processes have continuously improved in terms of their robustness and efficiency. Positive changes in delivery methods have also taken place. Particularly notable are the provision of material through the VLE, including video-or audio-records of lectures as an additional reference, and the handling of the assessment of projects. This latter development has improved the efficiency and effectiveness of project assessment and feedback, allowing the teaching group to cope with the continually growing numbers of students on the programme.

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.*

Overall, the programme aims and ILOs are at MSc level. Some specialist modules have tailored entry points to ensure accessibility for a wide range of students, but these still provide Masters level challenges.

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 comparable with similar programmes elsewhere in the UK, and are compatible with the HEQ Framework. The standards are also compatible with IMechE benchmarks.

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 are entirely appropriate to the learning outcomes of the modules, with examinations, coursework, reports and presentations all being used.

The marking of examination papers was clear and fair, and an arithmetic tracking sheet was used. The marking of projects was through and transparent, involving presentation, report and viva. A clear checklist and marks breakdown were provided adhered to by all markers. In the current year a Faculty-wide app has been used to facilitate the management of project marking and this appears to have had an overall benefit on the consistency and auditability of marking, as well as facilitating feedback to students.

There was nothing systematic in the student performance which would indicate any problems with teaching or assessment methods, or in the accessibility of the subject matter.

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 student performance was broadly as one would expect for an MSc course with multiple specialisms and some common core modules.

The performance profile for all subjects and types of assessment does not indicate any imbalance in challenge and/or volume between modules.

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.

The process for assessing projects is worthy of wider dissemination. The use of three elements of assessment at the formation, interim and final stages, supported by an app that records performance and feedback at each stage is exemplary, and shows that it is possible to deal with large numbers of projects without loss of assessment rigour.

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.

Many of the specialist modules reflect the research activity of the academic staff. Research interests of staff were also evident in the project topics and it is clear that students benefit from this in having access to leading edge laboratories and research groups.

8. Where the programme forms part of an Integrated PhD, please comment on the appropriateness of the programme as training for a PhD

n/a

For Examiners involved in mentoring arrangements

9. 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

The Examination/Assessment Process

10. 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

11. 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.

Yes

12. 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 papers were provided for comment. Suitable arrangements were made for comments to be considered, although it was not always clear how or whether the comments had been taken into account.

13. 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?

A full range of assessed work was made available and this was clearly laid out for scrutiny prior to the board.

Scripts were clearly marked and annotated, and the involvement of second/collaborative markers was explicit in the paperwork provided. Arithmetical checking was clearly applied.

The projects were made available with the associated marking detail being provided in electronic files. All project assessors had followed the (exemplary) procedure for marking and there was very little discrepancy in the (double-blind) marking.

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

The choice of dissertation topics was appropriate for the award. The method of assessment was rigorous and the standards were consistent with MSc dissertations elsewhere in the UK.

15. 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 I was given sufficient notice to enable me to attend the meeting of the Board of Examiners. The Board was conducted appropriately and decisions were made in a consensual way without excessive detailed discussion. The recommendations made by the Board were entirely appropriate in all cases.

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

Not able to comment on this aspect as it applied to the particular Board.

Other comments

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