

**The University of Leeds**  
**EXTERNAL EXAMINER'S REPORT**  
**ACADEMIC YEAR: 2014– 2015**

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

Faculty / School of:	Mechanical Engineering
Subject(s):	
Programme(s) / Module(s):	Mechanical Engineering; Automotive Engineering; Mechanical with Nuclear Engineering
Awards (e.g. BA/BSc/MSc etc):	BEng / MEng

**Name and home Institution / affiliation of Examiner****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 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?*

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*

## 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 ILOs for the modules reviewed are appropriate for each level of the programme, and contribute in a coherent manner to each programme's overall aims and structure.

**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, the programmes' aims are comparable with those of other high quality universities and meet the requirements of the Institution of Mechanical Engineers.

**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 appropriate for the aims of the programmes and provide good discrimination of student ability. It is commendable that many modules include a substantial coursework element which will have a formative role as well as assessing performance outside a traditional exam environment. The marking standards appear to be fair, consistent and reliable.

**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.*

Academic standards are high: degree classifications are a true measure of achievement.

**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.*

**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 substantial individual and team projects are mostly related to academics' research and reflect the high quality of research being undertaken in the School.

**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 – all the relevant information was provided.

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?

Draft examination papers were received in good time, enabling my comments to be considered by the module examiners. Apart from small suggestions and queries, all questions were appropriate and sufficiently searching.

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?

All exam scripts for modules contributing to the degree award, all individual and team projects, and a selection of other coursework was available to me. This was ample to make a confident evaluation.

Marking was clear and auditable. Final totalled marks were missing from the front of some scripts inspected.

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

The subject matter for projects was wide ranging, with a high degree of challenge. The marking was fair, and it is pleasing that a wide marking range is adopted (with some fails and a maximum mark in the 90's).

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?

I was able to attend the meeting, and was happy with the recommendations of the board.

We were able to access marks electronically in the morning before the board, and were provided with programme results lists. This year, we were also provided the summary of module results at this stage also, including standard deviations in this module summary. Thank you for this improvement.

I found that navigating the computer systems to follow an audit trail from the mark on an exam script or coursework element to the electronic data for the module or individual student profile was very difficult.

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

Yes I was confident with the way mitigating circumstances were handled, and happy that the board paid due attention to these in its decision making.

**Other comments**

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

The information pack provided by the Department was very helpful this year in being able to track marks from scripts to degree averages, and make sense of the relationship between the multiple computer systems (VLE, SIS, Banner). I encourage the University to adopt a single system for mark processing as soon as possible.

Not all exam scripts inspected followed procedure in terms of marking and checking. In particular, a number did not have the total mark written on the front of the script. The marks for individual questions were also sometimes obscure (e.g. 13/15 for one question being converted to 28.6 out of 33, but with no clear process ... just ticks for the question and 28.6 written on the front sheet). Not all scripts were annotated to indicate that checking had taken place (but there was a clear improvement compared to last year).

The module means were very varied, ranging from mid 40's to mid 70's. I would have expected more concern about module means being out of line with the norm than some of the minutes indicated.

MECH3496 Thermofluids III taken by all Mechanical and Auto students (and associated MECH3750 Aerospace Propulsion taken by Aero students) had a low mean, 47%. The students we talked to in both years 3 and 4 agreed with staff comments that students were not fully engaged with this module. All students felt that this content of the module was unsatisfactory, but were supportive of staff involved. Although the low mean appears to reflect the student learning accurately, the external examiners felt that the module mark for any student just below a classification boundary with a low mark in this module should be re-checked for accuracy.

School of Mechanical Engineering

University of Leeds  
Leeds LS2 9JT



**UNIVERSITY OF LEEDS**

21 September 2015

Dear

**RE: School Response to External Examiner's Report 2014/15**

Thank you very much for your External Examiner's Report for the undergraduate Engineering programmes for which you were responsible last session.

Your comments on the complexity of the software systems currently used to process and present marks (VLE, SIS, Banner) have been raised with the University's Quality Assurance Team. However we are currently obliged to continue to use the SIS software as an intermediary between the VLE and Banner.

Regarding your comments on the annotation on the exam scripts, we will endeavour to ensure that total marks for each question are clearly shown within the script and on the front cover. We will also ask all the mark checkers to initial the front cover to confirm that they have checked the marks.

Finally you raise the problems with the Thermofluids 3 module last year which we acknowledge. We are reviewing the content of this module as well as its delivery and assessment to ensure that it meets the expectation and needs of the students in this important area of mechanical engineering science and practice. We did check carefully marks for those students near a class boundary and would certainly share your concerns if the mean marks for this module, or any others, were consistently outside the School norms.

Assuming that you are happy with these responses, all that remains is for me to thank you again for your continued period as an external examiner in the School and to look forward to your contributions over the coming year.

Kind Regards

Head of School

cc

Head of School

Professor of Solid Mechanics