

The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2017-18 QAT Received 18/02/2019

Part A: General Information

Subject area and awards being examined

Title and Name of Examiner:

<i>Faculty / School of:</i>	Mechanical Engineering
<i>Subject(s):</i>	
<i>Programme(s) / Module(s):</i>	Automotive
<i>Awards (e.g. BA/BSc/MSc etc):</i>	BEng, MEng

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.
 Good use of clickers in some lectures. All lectures uploaded online to allow students to review lectures.
 Good record of project monitoring and feedback. Efficient well run processes and exam board.

Enhancements made from the previous year

Please highlight any enhancements made to the programme(s) or processes over the past year in this box.
 Extra feedback on masters projects noted from comments by module leader as requested by previous external examiner. Good first run of additive manufacturing module, but useful to know what topics have been replaced and impact of this if any on other modules.

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 are high failure rates noted on the vehicle design and analysis MECH3470 (37%) and automotive chassis engineering MECH5185M (38%) modules. It appears both modules are established and these are one-offs primarily due to the exam. Perhaps useful to identify which topics were not well understood and consideration of introducing extra tutorial support or a phase test for next year.

For Examiners in the first year of appointment

1.	Were you provided with an External Examiner Handbook?	Y
2.	Were you provided with copies of previous External Examiners' reports and the School's responses to these?	Y
3.	Were you provided with a External Examiner Mentor?	Y

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

n/a

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
<p>Please use this box to explain your overall impression of the programme structure, design, aims and intended learning outcomes.</p> <p>Overall a good structure and design of curriculum covering important aspects for automotive engineers.</p>		
13.	Is the influence of research on the curriculum and learning and teaching clear?	Y
<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>Good use of current research with case studies and examples has been used in some lectures as reported by students.</p>		
14.	Does the programme form part of an Integrated PhD?	N
<p>Please comment on the appropriateness of the programme as training for a PhD:</p> <p>n/a</p>		
15.	Does the programme include clinical practice components?	N
<p>Please comment on the learning and assessment of practice components of the curriculum here:</p> <p>n/a</p>		
16.	Is the programme accredited by a Professional or Statutory Regulatory Body (PSRB)?	Y
<p>Please comment on the value of, and the programme's ability to meet, PSRB requirements here:</p> <p>IMechE accredited programme, meeting all requirements. Good use of team working and sustainability issues.</p>		

Assessment and Feedback

17.	Does the programme design clearly align intended learning outcomes with assessment?	Y
<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>Good range of assessment methods across the course, however some courseworks seem to require a large student effort relative to % of marks awarded according to students comments.</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

*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:
Good academic standards achieved throughout the programme with a good range of awards at various levels within the cohorts.*

Please use this box to provide any additional comments you would like to make in relation to assessment and feedback:

Assessments are at the appropriate level for all cohorts and marking has been fair and consistent. Feedback has been evidenced and noted to be helpful by the students.

The Progression and Awards Process

20.	Were you provided with guidance relating to the External Examiner's 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:

We'll run efficient process with appropriate actions taken where needed. Comments from module leaders were very useful.

Other comments

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

The students appeared very content with the programmes and commented on the good facilities on offer, however pc availability was noted to be an issue in the afternoons. More worked examples in the mechatronics modules would be helpful to the students. It is very pleasing that good internship opportunities are facilitated by the university.

Name of School and Head of School (or nominee)

Title and Name of Examiner:

Subject(s):

Automotive

Programme(s) / Module(s):

Awards (e.g. BA/BSc/MSc etc):

BENg/MEng

Title and Name of Responder:

Position*:

Head of School

Faculty / School of:

Mechanical Engineering

Address for communication:

Email:

Telephone:

*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 gat@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

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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:

MECH3470

1. There are high failure rates noted on the vehicle design and analysis MECH3470 (37%) and automotive chassis engineering MECH5185M (38%) modules

There were no changes associated in the method of delivery of MECH3470 during 2017/18 compared to previous years. The number of students enrolled on the module in 2017/18 increased by approximately 20% on the previous year. The module is currently open to MSc students and during 2017/18 a number of MSc students arrived late due to visa issues. This group of students therefore took longer to settle.

MECH3470 is a well-established module that has a good record of performance in recent years and has been used to successfully trial novel approaches to assessment. The module mark statistics for 2017/18 were very much in-line with those of previous years and did not lead to concern. It is therefore hard to identify a reason for the high failure rate.

This concern can be addressed through action linked to my responses below.

MECH5185M

1. There are high failure rates noted on the vehicle design and analysis MECH3470 (37%) and automotive chassis engineering MECH5185M (38%) modules

There were no changes associated in the method of delivery of MECH5185M during 2017/18 compared to previous years.

The module was affected by a number of late arrivals due to visa issues and these students did experience difficulties in making up for lost time. Also a number of students across the cohort lacked some basic skills in the creation and use of free body diagrams whose use is linked to the analysis of fundamental mechanics associated with the vehicle body.

To tackle the latter problem, the lecturers on MECH5185M have written a text book that covers all essential material and this includes a chapter on basic vehicle mechanics that is not covered in the lecture notes. Also, consideration will be given to the delivery of a special teaching session for those who do not possess the relevant background.

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:

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:

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 courseworks seem to require a large student effort relative to % of marks awarded according to students comments:

MECH5185: The content and weighting of the assignments will be reviewed with the intention to increase the weighting of the two assignments to 20% each.

MECH3470: Our review of the module identified this to be an issue to address ahead of the forthcoming academic year. I intend to review content and streamline the delivery without compromising the learning outcomes of the assignment. This will give students a better defined path through the work and so rebalance the trade-off between effort and mark.

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:

Other comments

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

PC availability was noted to be an issue in the afternoons:

MECH3470: There is no formal requirement to use a university PC to undertake the assignment. The work benefits from the use of Matlab to generate graphical output and this software is available for students to use on their own PCs. The outcome of the assignment review, Q2, will reduce any dependency on university PC usage.

MECH5185M: There is no formal requirement to use a university PC to undertake the assignments and no specialised software is required.

More worked examples in the mechatronics modules would be helpful to the students:

MECH3470: The material covered in semester 1 is already supported by example sheets and good use is made in-class to go over typical exam style questions. I plan to generate additional example sheets to cover semester 2 material ready for introduction in the next academic year. These will be available to students from all programmes taking the module.