

**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:	School of Mechanical Engineering
Subject(s):	
Programme(s) / Module(s):	Medical Engineering MECH3900, MECH5650, MECH5490M, MECH550M, MECH3225, MECH5221,
Awards (e.g. BA/BSc/MSc etc):	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. The marking system for the projects appeared to be very thorough and interesting. The problem was that the folder that brought together all the elements of the marks was sorted by each individual element and made interpreting an individual student's project mark almost impossible. However I believe that the system that has been introduced is rigorous and well implemented.

**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 feedback related to my comments on the exam papers was provided when I visited which was invaluable and closed this loop. The structure of the medical engineering programme was provided in the room which was incredibly helpful

**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
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 a 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
5.	Has the school responded to comments and recommendations you have made?	Y
6.	Where recommendations have not been implemented, did the school provide clear reasons for this?	Y / N
7.	Have you acted as a External Examiner Mentor?	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*

The School runs a well established set of programmes. There are small changes required but in reality the programmes across the School are well run. Therefore there have been only small changes suggested and required. The changes suggested all appear to have developed into improved practices. In particular the marking of the projects has improved greatly, with an apparently rigorous and web based system that allows for independence of marking between examiners, for the supervisor to appropriately allocate marks for effort and for the outcome of the project to be independently assessed.

## 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><i>Please use this box to explain your overall impression of the programme structure, design, aims and intended learning outcomes.</i></p> <p>The programme structure is appropriate for medical engineering, although there is no formal introduction to medical engineering in the first 2 years of the programme. Elements related to medical engineering could be usefully introduced earlier to engage and motivate this small group of students. The choice of modules in 3<sup>rd</sup> year is a little disappointing as it appears to be only biomaterials (10 credits) or 4 different aspects of medical imaging. A slightly broader selection would be preferable.</p>		
13.	Is the influence of research on the curriculum and learning and teaching clear?	Y
<p><i>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)</i></p> <p>Research is clearly strong in the School on topics related to medical engineering. The choice of projects is heavily focused in this area, and the choice of modules in 4<sup>th</sup> year relates closely to the research interests of academics.</p>		
14.	Does the programme form part of an Integrated PhD?	N
<p><i>Please comment on the appropriateness of the programme as training for a PhD:</i></p>		
15.	Does the programme include clinical practice components?	N
<p><i>Please comment on the learning and assessment of practice components of the curriculum here:</i></p>		
16.	Is the programme accredited by a Professional or Statutory Regulatory Body (PSRB)?	
<p><i>Please comment on the value of, and the programme's ability to meet, PSRB requirements here:</i></p> <p>The programme meets the requirements of the IMechE, I would believe without any significant issues</p>		

## Assessment and Feedback

17.	Does the programme design clearly align intended learning outcomes with assessment?	Y
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*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.*

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:*

The standard of achievements demonstrated by the students was equivalent to comparable programmes elsewhere.

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

In the medical engineering modules coursework remains the predominant means of assessment. This year samples of the coursework was available which showed good engagement from the students.

For 4<sup>th</sup> year group projects there was plenty of examples of interesting work carried out. The medical engineers were integrated into teams along with engineers from other disciplines. The marks awarded appeared to be fair, although on one occasion this year I observed a student who had clearly disengaged from the process was possibly over rewarded. This was not a general trend however. The overall standard of final reports (individual and group) was high.

For the 3<sup>rd</sup> year projects were varied and well written up. The standards were comparable to elsewhere.

### 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
<p><i>Please use this box to provide any additional comments you would like to make on the questions above:</i></p> <p>Access to the VLE was not attempted in the current year. This is a shame as I believe that it would be interesting to see the work as it is set to the students and the course organisers contribution. Hard copies of coursework and course handbooks were provided.</p> <p>The exam papers were sometimes sent to me rather close to the deadline which was unfortunate. One exam paper required a little improvement to make it appropriate and the reuse of material in the exam paper (MECH5650) from the previous year was a little worrying.</p>		

#### 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*:	Head of School
Faculty / School of:	<i>Mechanical Engineering</i>
Address for communication:	University of Leeds, Leeds, LS2 9JT
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 [qat@leeds.ac.uk](mailto: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**

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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:

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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:

Introducing broader elements of medical engineering earlier in the programme and a broader range of options at level 3– we have discussed this carefully but, on balance, we would prefer to retain the present structure which provides greater flexibility to enable students to transfer between programmes as their interests develop – our students value this flexibility very highly. Our strategy for ensuring we get the balance between student workload and getting good quality, timely feedback is to be careful to avoid the proliferation of modules.

**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:*

Examiner experienced difficulties to check individual marks for projects – we will ensure that the documents and data are easier to follow by providing data sorted by SIS and by student name.  
Some papers were sent close to the deadline – we will continue to remind staff of the need to provide exam papers in a timely manner as one of our teaching ‘non-negotiables’.  
Re-use of material in MECH5650 – we have now introduced a new process so that non-one can re-use any question from the last four years and that those from greater than four years have to be amended.

**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**