

The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2017-18 QAT Received 02/07/2018

Part A: General Information

Subject area and awards being examined

Title and Name of Examiner:

Faculty / School of:

Mechanical Engineering

Subject(s):

Medical Engineering

Programme(s) / Module(s):

Medical Engineering undergraduate programme

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 personal tutorial system builds relationships with tutors early and establishes a cohort identity as well as engaging students with subject material.
 The Medical Design module is excellent – students work with surgeons to establish and address clinical needs and are exposed to a hospital environment.

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.

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 Examiner Handbook?	Y / N
2.	Were you provided with copies of previous External Examiners' reports and the School's responses 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 / 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 / N
9.	Does the programme structure allow the programme aims and intended learning outcomes to be met?	Y / N
10.	Are the programme aims and intended learning outcomes commensurate with the level of award?	Y / N
11.	Did the Aims and ILOs meet the expectations of the national subject benchmark (where relevant)?	Y / N
12.	Is the programme(s) comparable with similar programmes at other institutions?	Y / N
<p>Please use this box to explain your overall impression of the programme structure, design, aims and intended learning outcomes.</p> <p>Students were disappointed by the lack of medical content in the first two years. However, medical engineering tutor groups ensured a cohort identity.</p>		
13.	Is the influence of research on the curriculum and learning and teaching clear?	Y / 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>Projects are clearly research-based, as is some of the coursework.</p>		
14.	Does the programme form part of an Integrated PhD?	Y / N
<p>Please comment on the appropriateness of the programme as training for a PhD:</p>		
15.	Does the programme include clinical practice components?	Y / N
<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)?	Y / N
<p>Please comment on the value of, and the programme's ability to meet, PSRB requirements here:</p> <p>Course seems to fit well with IMechE requirements.</p>		

Assessment and Feedback

17.	Does the programme design clearly align intended learning outcomes with assessment?	Y / 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>There is a lack of exams for the modules specific to Medical Engineering. Of the modules I reviewed only one part of one module was assessed by exam and only one undergraduate took this module. All other assessment is coursework or project.</p>		

18.	Is the design and structure of the assessment methods appropriate to the level of award?	Y / N
19.	Were students given adequate opportunity to demonstrate their achievement of the programme aims and intended learning outcomes?	Y / 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></p> <p>Academic standards are comparable to other institutions.</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 appreciated the module results spreadsheet, with module leader comments on any changes. This document was very helpful.</p>		

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 / N
21.	Was the progression and award guidance provided sufficient for you to act effectively as an External Examiner?	Y / N
22.	Did you receive appropriate programme documentation for your area(s) of responsibility?	Y / N
23.	Did you receive appropriate module documentation for your area(s) of responsibility?	Y / N
24.	Did you receive full details of marking criteria applicable to your area(s) of responsibility?	Y / N
25.	Were you provided with all draft examination papers/assessments?	Y / N
26.	Was the nature and level of the assessment questions appropriate?	Y / N
27.	Were suitable arrangements made to consider your comments on assessment questions?	Y / N
28.	Was sufficient assessed work made available to enable you to have confidence in your evaluation of the standard of student work?	Y / N
29.	Were the examination scripts clearly marked/annotated?	Y / N
30.	Was the choice of subjects for final year projects and/or dissertations appropriate?	Y / N
31.	Was the method and standard of assessment appropriate for the final year projects and/or dissertations?	Y / N
32.	Were the administrative arrangements satisfactory for the whole process, including the operation of the Progression and Awards Board?	Y / N
33.	Were you able to attend the Progression and Awards Board meeting?	Y / N
34.	Were you satisfied with the recommendations of the Progression and Awards Board?	Y / N
35.	Were you satisfied with the way decisions from the School Special Circumstances meeting were communicated to the Progression and Awards Board?	Y / N
<p><i>Please use this box to provide any additional comments you would like to make on the questions above:</i></p> <p>I strongly support the change to consideration of marks at pass boundaries. Referring borderline marks back to module leaders for a decision on whether learning outcomes have been met is an excellent way of ensuring clear and fair pass/fail decisions.</p> <p>Is it clear to students that if they take a 20 credit "discovery" module at a lower level they will need to pass all their other modules to proceed/graduate?</p>		

Other comments

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

Students felt that the Anatomy and Physiology self-study module material could have been introduced at the start of the course, giving them plenty of opportunity to familiarise themselves with it. They found this module hard and got low marks as it is very different from the material taught in the first two years.

Name of School and Head of School (or nominee)*Title and Name of Examiner:*

Subject(s):

Medical Engineering

Programme(s) / Module(s):

BEng/MEng

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

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

--

Response to Enhancements made from the previous year

--

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:

--

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:

lack of exams for modules in medical engineering (all coursework or project)

Most modules at level 1 and 2 are assessed with exams. 50% of the modules in I3 and I4 have some form of examination in the assessment, however, it is possible through module choice to have fewer exams, particularly at level 4. We are moving towards more examination based assessment to reduce plagiarism, however, in industry employees are assessed through reports and not examination, hence, a balance must be maintained.

students disappointed by lack of medical content in year 2

This is a common complaint. The 1st 2 years of the course are focussed on fundamental Mechanical Engineering Science. This is advised to the students on open days and applicant days. The reasoning for this is that our course firstly generates students with good fundamental engineering skills. The students then learn to apply these skills at level 3 and 4 where most of the medical content is delivered. We have been progressively increasing the medical content at Level 1 and 2 in the Design and Manufacture modules with the addition of the L1 Bioarm and L2 Colonoscopy, and we aim to eventually focus all of these into medical. For example, in the upcoming year we are introducing a Fractured Neck of Femur DHS device in the L1 design assembly aspect.

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:

impact of 20 credit discovery module - do we tell students they will have to pass all other modules to progress. Yes, we do tell the students that choosing a discovery module might mean that they have to pass all of the other 100 credits.

Other comments

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

anatomy and physiology module could be introduced at the start of the course.

We agree that the course would benefit from an early on anatomy module at level 1 and 2, however, there is no room in the program presently for this. We are currently in discussion with Biological Sciences with regards to provisions for anatomy.