The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2018-19 QAT Received 19/08/2019

Part A: General Information

Subject area and awards being examined

Title and Name of Examiner:

Faculty / School of:	Faculty of Biological Sciences, School of Biomedical Sciences
Subject(s):	Human Physiology
Programme(s) / Module(s):	BSc Human Physiology – all programme variants; MBiol, BSc Human Physiology (Integrated Masters) – all programme variants BSc Human Physiology in Relation to Medicine
Awards (e.g. BA/BSc/MSc etc):	MBiol / BSc

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.

There are many areas of good practice evident in these degree programmes. In particular, there is an impressive portfolio of modules, ensuring students graduating from these programmes have the requisite knowledge to graduate as a physiologist. The compulsory modules in Year 1 ensure students have the necessary core information to build upon in Years 2 and 3. Students develop a range of core practical skills from the laboratory units in Years 1 and 2 in preparation for the final year project. In Years 2 and 3 there is scope for students to select optional modules, whilst the compulsory modules ensure students have knowledge of a wide range of physiological systems.

I was particularly impressed by the Advanced Topics in Physiology units (level 3) which allowed students the opportunity to independently research areas of interest. These units allow students to advance their literature searching skills and to develop critical thinking skills. The students I met with in March also enjoyed the independent study associated with these units. The Advanced Scientific Skills unit (level 3) is a good test of the student's skills in data analysis and interpretation, and knowledge of experimental techniques and design.

There is a wide range of research project types available for students in their final year, including traditional laboratory-based projects and alternative project options, including field-based, computational, science communication and educational project options. The non-laboratory projects allow those students who have identified non-research career pathways to build skills that will help to equip them in their chosen careers. Regardless of the project type, the students can develop an extensive set of transferable skills. I also thought it was a beneficial exercise for students to consider the ethical considerations associated with their project work and their personal reflection on completing the project. The latter can be particularly valuable to students in identifying their strengths and areas for further improvement.

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 in this role and therefore I am not able to comment on any changes made to the programme or processes over the past year. From reading the provided report from the previous External Examiner, , the issue of communication between students and staff was raised. Having met the students in March 2019, the students from the programme (there were 3 course representatives) did not raise any concerns about communication with staff.

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

In my opinion, I do not believe there are any areas requiring urgent attention.

For Examiners <u>in the first year of appointment only</u>

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 <u>completing their term of appointment only</u>

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.

As previously stated, the programme structure ensures graduates have the required knowledge to graduate as a physiologist. The Year 1 compulsory modules equip students with the necessary foundation knowledge to build upon in Years 2 and 3. The compulsory modules in Years 2 and 3 ensure that these students study appropriate physiological systems to graduate as a 'card-carrying' physiologist. The flexibility built into the programme also enables students to study other related bioscience areas. The option for students to study abroad or undertake a work placement is also of benefit to students in building a range of transferable skills for the workplace.

The integration of practical units in Years 1 and 2 ensures students also develop core laboratory skills for a potential research career. The compulsory research project in Year 3 enables students to acquire valuable transferable skills such as experimental design and methods, independent learning, problem solving, critical and creating thinking, and communication, both oral and written. As a result, students graduating from this programme have a sound knowledge of their field and also an extensive portfolio of transferable skills.

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

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)

Students on the Human Physiology programme complete a number of compulsory laboratory units in Years 1 and 2, ensuring that they develop practical skills and gain experience in scientific methods and allied research skills such as data analysis, presentation and interpretation. These skills are extended in the Year 3 research project where students are able to undertake research in the laboratories of principal investigators. Unlike a number of other institutes, those students who wish to complete a laboratory-based research project are able to do so and this is a positive attribute for the programme. Of the laboratory-based projects I looked at, the students were given the opportunity to carry out substantial research work using a range of advanced techniques.

For those students who wish to explore other careers, the option to carry out a non-laboratory-based ensures these students still develop important research-based skills. Those students undertaking either the work placement or MBiol, have the opportunity to develop additional research expertise over an extended period of time.

In addition to the opportunity to carry out independent research projects with research-active staff, the Year 3 modules ensure students are kept informed of current research in any given field. The highly valued Advanced Topics in Physiology module also enables students to research their own areas of interest and discover the latest available research and subsequently apply that knowledge in written communication form. Unit leads also have the flexibility to modify the content of these Year 3 units depending upon current research topics of importance.

14.	Does the programme form part of an Integrated PhD?	N

Please comment on the appropriateness of the programme as training for a PhD:

Not applicable.

15.	Does the programme include clinical practice components?	N

Please comment on the learning and assessment of practice components of the curriculum here:

Not applicable.

16.	Is the programme accredited by a Professional or Statutory Regulatory Body (PSRB)?	N

Please comment on the value of, and the programme's ability to meet, PSRB requirements here:

Both the BSc with Industrial Placement and MBiol programmes are accredited by the Royal Society of Biology (RSB). The accreditation process by the RSB is rigorous and ensures that the programmes possess clear learning outcomes and include extensive research opportunities for students. This accreditation is important in relation to improving student employability and also assures students of the quality of their degree.

Assessment and Feedback

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

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 examined the exam papers and accompanying scripts for a number of modules across Years 1-3. The exam papers included a range of question formats including multiple choice questions, short answer questions and essays. Within most modules there was an element of coursework, including in-course assessment questions, presentations and essays, reducing the pressure on students during the exam periods and also allowing students to develop additional communication skills.

I reviewed the mean marks for units taken by this student cohort for the current year and preceding years. The vast majority of scripts I viewed were annotated well and it was clear how the final mark was derived. There was a good distribution of marks across individual units and the mean marks for the modules were as I expected them to be. Coursework elements incorporated into the modules did not appear to overinflate unit marks and allowed students to develop additional transferable skills.

Students also completed modules which were solely coursework-based, e.g. Year 3 research projects. To be expected, where students are assessed by coursework, a large proportion of students are obtaining first and upper second class marks. From examination of sample research projects, the marking was appropriate and there was good agreement between first and second markers. The mean mark and distribution of marks for the Research Project in Biomedical Sciences was again comparable to my own institute. I understand that there was a recent change to the formatting of the project report to become more in line with a research article. The training received by the students allowed the generation of well-written and structured results sections. There was evidence of high quality report writing.

The range of assessment approaches utilised ensured that a range of objectives have been assessed. Students have opportunity to demonstrate their knowledge of topic areas and apply that knowledge in the various assessments used. Via the practical modules students develop essential technical, analytical and problem-solving skills; and the Year 3 research projects in particular assess students higher order cognitive skills.

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:

I have indicated above that graduates from these programmes have a sound knowledge of a breadth of physiological areas. They also graduate with an extensive range of transferable skills and are well-prepared for either a research or alternative career.

I can confirm that the quality of work produced by the students on these programmes is comparable to those students completing similar modules at my own institute. For some students there was a drop in their Year 3 average in comparison to the Year 2 average; however, they were still able to obtain good degrees using the university formula used to calculate the final award. There was a good distribution of classifications in the final awards and the award given was justified: those students obtaining first and upper second class degrees demonstrated that they can produce high quality work commensurate with that award.

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

The handbook, Code of Practice on Assessment, is a valuable document to students and staff. Publication of the marking criteria and proformas in a single handbook ensures transparency and also consistency in the criteria used by staff in assessment across the different modules. There were clear criteria to use in deriving a final student mark, e.g. the marking criteria for assessing the process/execution mark for the Year 3 research projects. Completion of these assessment proformas were also useful for the delivery of feedback to 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:

Draft exam papers for emendation were sent out promptly and securely. The questions were appropriately matched to the level of study and supported by detailed indicative answers. I was given sufficient time to comment upon the exam papers. All the necessary documentation was sent out to me in advance of the Exam Board meeting. Upon arrival in June, exam scripts were available for viewing and clearly organised. The vast majority of scripts I viewed were annotated well and it was clear how the final mark was derived. Bundles of exam scripts and coursework were generated for those students who were in the discretionary band. These were accompanied by a useful summary of the students' overall classification average, and the proportion of modules at the higher class.

Other comments

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

I would like to take this opportunity to compliment the Programme Director, and colleagues in the Faculty of Biological Sciences for running a highly successful physiology degree programme. They must be commended for the large number of students attracted to study this high quality undergraduate programme: students undertake a breadth of physiology modules and develop an extensive portfolio of transferable skills. They are also well supported by staff, both academic and administrative, during their studies.

I would also like to thank and for the information and support provided. Thanks must also go to for the organisation undertaken prior to and during my visits. comprehensively answered any questions I had.

Part C: School Response to External Examiner Report

QAT Received 23/12/2019

Name of School and Head of School (or nominee)

Title and Name of Examiner:

Subject(s):	*Human Physiology*
Programme(s) / Module(s):	BSc Human Physiology – all programme variants; MBiol, BSc Human Physiology (Integrated Masters) – all programme variants BSc Human Physiology in Relation to Medicine
Awards (e.g. BA/BSc/MSc etc):	MBiol / BSc

Title and Name of Responder:	
Position:*	Programme Leader, Human Physiology
Faculty / School of:	*Faculty of Biological Sciences, School of Biomedical Sciences*
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) must be sent 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 continue to develop the Advanced Topics units to keep the material fresh and up-to-date, and will be inviting new colleagues to contribute to these modules as part of their gradual increase in teaching hours. We are proud of the wide range of research projects that we are able to offer our students, which correlate with the wide range of activities undertaken by our academic staff. These provide students with the opportunity to develop key skills that prepare them for their chosen career path.

Response to Enhancements made from the previous year

In the previous academic session there were a couple of isolated instances which were not communicated well with students. The safeguards that have since been put in place have prevented this from reoccurring. We continued to monitor BMSC2117 following a decrease in marks during the previous session, and performance has increased back to the level of the 2016-17 session, suggesting that this was just a dip with the 2017-18 cohort.

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:

There are no matters for urgent attention.

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:

On behalf of the students and staff from the Human Physiology Programme, I thank for agreeing to be External Examiner and for input into the 2018-19 academic session.

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:

We thank the External Examiner for acknowledging that our students “graduating from this programme have a sound knowledge of their field and also an extensive portfolio of transferable skills” and that “Unlike a number of other institutes, those students who wish to complete a laboratory-based research project are able to do so and this is a positive attribute for the programme.”

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:

We thank the External Examiner for commenting on the robust, appropriate, and transparent nature of our assessment methods and procedures.

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:

We thank the External Examiner for confirming that the manner by which we, but particularly our colleagues from the Student Education Office, made assessment material available for evaluation was useful, appropriate, and well-organised.

Other comments

Response to items included in the ‘Other Comments’ section of the report

We thank the External Examiner for their kind comments and for acknowledging that whilst the market is fairly small and inconsistent for a specialist Physiology degree programme (though Physiology modules are core components of other Programmes in our Faculty) we remain able to recruit significant numbers of high-quality students. The way that our four Biomedical degree programmes are structured enables us to tolerate fluctuations in programme popularity whilst maintaining student numbers.