

ULSTER UNIVERSITY

REPORT OF A MEETING OF THE REVALIDATION PANEL: 28B HEALTH PHYSIOLOGY

30 April 2020

PANEL:

Professor H Farley, Associate Dean (Education), Ulster University Business School (Chair)

Dr J Uhomobhi, Lecturer, School of Engineering, Ulster University

Ms S Murphy, Vice-President (Belfast), Ulster University Students' Union

Dr C Paul, Academic Director Health and Social Sciences, University of West England

Dr S Daly, Assistant Head, School of Physics, Technological University Dublin

REVALIDATION UNIT CO-ORDINATOR:

Ms J Crawford, School of Health Sciences, Faculty of Life and Health Sciences

IN ATTENDANCE:

Mr B McArthur, Academic Policy and Standards Officer, Academic Office, Ulster University

1 INTRODUCTION

The Panel met to consider the following provision within Revalidation Unit.

- BSc Hons Health Physiology (FT) (JN) (with AB Health Physiology and CertHE Health Physiology exit awards)
- BSc Hons Healthcare Science (Cardiac Physiology) (FT) (JN) (with AB Healthcare Science (Cardiac Physiology) and CertHE Health Physiology exit awards)
- BSc Hons Healthcare Science (Respiratory and Sleep Physiology) (FT) (JN) (with AB Healthcare Science (Respiratory and Sleep Physiology) and CertHE Health Physiology exit awards)

The Healthcare Science programmes are accredited by the National School of Healthcare Science (NSHCS) which is part of Health Education England. The NSHCS indicated that reaccreditation of the programmes would take place post-revalidation using its desktop review process.

All students would initially register on the BSc Hons Health Physiology. At the end of Year 1, students would be able to transfer into either of the Healthcare Science programmes. Having registered their interest, each student would undergo a 'values-based' interview carried out by an academic member of staff, a Health Trust representative and a service user. The number of transferees would be capped by the number of placement sites available. In this regard, during the revalidation meeting, it was confirmed that the Health Trusts "have agreed to support 20 cardiology and 10 respiratory and sleep work-based training placements annually".

Many modules are shared across the three programmes. All level 4 modules are shared in a common Year 1. At level 5, 80 credits of study are shared (5 of 7 modules) with the main divergence into the cardiac physiology and respiratory and sleep physiology specialisms occurring in final year.

Each of the specialism programmes contains 50 weeks work-based learning in a 10-credit point module in semester 3 at the end of year 2 and a 40-credit point module in semester 2 of year 3.

Students exiting each of the programmes after successful completion of the level 4 modules would receive the same exit award, a CertHE Health Physiology.

Assessment rubrics were provided in the revalidation document for all modules which were described by external panel member, Dr Daly, as “very well developed and appropriate assessment rubrics”.

It was evident that in the design of the provision the University’s curriculum design principles and assessment workload equivalence guide had been taken into account with one exception, the inclusion of several 10-credit point modules – see Section 6, paragraph 11 below.

Projected student numbers for the Health Physiology programme are as follows.

Year	2020/21		2021/22		2022/23		2023/24		2024/25	
	Min	Max								
Health Physiology	30	55	30	55	30	55	30	55	30	55

Projected student numbers (i.e. transferees from Health Physiology) for the Healthcare Science programmes are as follows.

Year	2020/21		2021/22		2022/23		2023/24		2024/25	
	Card	Resp								
Transfers	20	10	20	10	20	10	20	10	20	10

2 DOCUMENTATION

The Panel received the following documentation:

- Agenda and programme of the meeting
- Guidelines for evaluation and revalidation panels
- QAA benchmark statement for Health Studies (2019)
- External examiner reports for the last two years
- Preliminary comments from Panel members
- Revalidation documentation

The following report provides a summary of issues raised during the event and responses to Panel questions provided by each of the groups that met with the Panel during the meeting.

The Panel met initially with the Faculty senior management team comprising Professor A McKillop, Associate Dean (Education), Professor S Martin, Head of School of Health Sciences, Dr D Kerr, Associate Head of School of Health Sciences and Ms J Crawford, Revalidation Unit Coordinator, before meeting with a group of current students and finally with the subject team.

3 MEETING WITH SENIOR MANAGEMENT TEAM

Provision

The provision was an important part of the portfolio of healthcare related provision within the Faculty which included the following areas: Pharmacy, Dietetics, Nursing, Psychology Environmental Sciences and Sports. The programmes were important to both the School of Health Sciences and the Jordanstown campus in terms of diversity of provision. Stakeholders including employers, service users and students had been involved in development of the provision to ensure that graduates were 'workplace ready'.

Staff resources

Because of the relatively small teaching team, a situation that had presented challenges in the past, staffing levels were closely monitored. A contingency plan was in place to provide support in the event of staff absence. This involved the use of part-time staff who were able to respond quickly when required, the ability of the teaching team to cover for each other across common modules, and the timely recruitment of new staff. The recent recruitment to the teaching team of Professor Mark Tully, Professor of Public Health, was highlighted as a positive example of this. The use of staff from other healthcare subjects, for example, Podiatry, where there were common factors, was also being explored. Funding was available where part-time hours were required. A dedicated technician was also part of the team as were administrative support staff. It was pointed out that efforts were made to ensure that teaching staff had adequate free time for research.

Staff - clinical experience

Staff maintained clinical experience through their contacts within the Health Trusts where they attended periodically to update their practice skills.

Demand

Projected student intake numbers for the next period of approval were between a minimum of 30 and a maximum of 55 students per annum with a maximum of 30 transfers per year to the Healthcare Science programmes. These numbers were adequate to maintain sustainability across each of the three programmes. Over recent years, there had been a steady increase in demand from initially when the programme began of 16 to 20 per year, rising to 30 to 35 per year, with a significant rise in the September 2019 intake of 53. All students register initially on the Health Physiology programme. At the end of first year, those interested can apply to transfer to one of the Healthcare Science programmes. Places were capped by the availability of clinical practice sites. To date, all students requesting transfer had been placed. Last year, only a small cohort had transferred which was perhaps due to an increased effort by staff in highlighting the range of careers available on graduation from Health Physiology.

While prior to the last revalidation there had been some problems in securing placement sites within Northern Ireland (NI), at which time sites had been sought in England and the Republic of Ireland, those issues had now been resolved. All students can now be accommodated within NI.

Admission requirements

Applicants to the programme were required to successfully complete an AccessNI and health check. After offers were made in August, applicants were required to submit the relevant information. Regarding the health check, the University's Occupational Health department was able to help. A previous conviction would not necessarily debar an applicant. A protocol was followed in such cases which included an interview with the applicant. The seriousness of the conviction would determine admission.

Where students wished to transfer to one of the Healthcare Science programmes, they were required to undergo a 'values-based' interview. Where a student was unsuccessful, they were able to continue in the Health Physiology programme but would not be able to practice in the National Health Service as a Healthcare Science Practitioner.

A workforce planning committee for the NI Department of Health was overseen by the Chief Scientific Officer (CSO) who controlled the local staffing budget. The School had initiated a process of engagement with the CSO involving at least one meeting per semester.

Covid-19 pandemic

The Faculty had worked hard to ensure that students had not been disadvantaged as a result of the change to online programme delivery as a result of the impact of the Covid-19 pandemic. In this regard, strenuous efforts had been made regarding online assessment arrangements. The Faculty had been in a very good position to transition to online delivery because much of its provision was already available online. All proposed changes made to teaching and assessment had been submitted through Heads of School and Associate Heads of School and approved by external examiners and the Associate Dean (Education). The experience gained currently would enable an improved approach in the next academic year, planning for which was already underway. Very detailed work around the academic and clinical practice elements of the provision involving course directors and practice placement educators was ongoing in preparation for the beginning of the next academic year. Two scenarios were being planned for; a continuance of the lockdown and the lifting of restrictions.

4 MEETING WITH STUDENTS

The Panel met with three final year students, one from each of the existing programmes. A wide-ranging discussion took place in areas including assessment and feedback, support and placement. The students were generally complimentary of the provision. The following is a summary of their responses to Panel questions.

- Programme choice – (Health Physiology) chose health physiology because due to personal circumstances would preclude undertaking placements in the other programmes; (Cardiology) personally, had undergone cardiology treatment in the

past; had a keen interest in healthcare; mother was a nurse; (Respiratory and Sleep) preferred interaction with patients.

- Information regarding career choice – felt less information was provided for the respiratory and sleep pathway leading to fewer students opting for this course.
- ‘Lunch and Learn’ sessions (career talks from past graduates) – since this was relatively new, it was not available in first year for current final year students.
- First year placements - a longer period on the cardiology and respiratory and sleep placements in first year would be welcomed.
- Studies Advisers – always available to provide support; could request a meeting at any time.
- Placement support – staff visit placement site for meeting with the student; contact the placement coordinator or course director at any time if problems or concerns arise.
- Feedback – generally very good; “happy” with it; improved each year and especially in final year which was the most stressful.
- Covid-19 / support – professional competencies completed by this stage, practice clinics cancelled so concentrated on completion of portfolio - plenty of support provided by practice educators; support excellent, email responses provided within half an hour.
- Placement learning outcomes/competencies set out in the placement handbook - each student was provided with a copy of the handbook. A new handbook was produced each year.
- Preparation for work-based learning (health physiology) – mature student, therefore familiar with the “world of work”. Intention to complete PhD after graduation.
- Final year project (skills preparation) – well prepared regarding office skills, research methods, critical analysis, data extraction, statistics etc. One student stated however that she had struggled with statistics because statistics had been covered in Year 2 and by the time of the final year project, much of what she had learned had been forgotten and she therefore struggled.
- Final year project (support) – consensus that excellent support provided by supervisors.
- Programme choice – each student stated that they were “happy” with their choice with one student suggesting that the knowledge and skills learned would facilitate retraining in any health-related environment.

5 MEETING WITH REVALIDATION TEAM

Stakeholder involvement in programme design

All key stakeholders had been involved in development of the revalidated provision including clinical practice educators, service users and students. Groups had been formed to look at different aspects of the programmes. This was to ensure that the provision would meet the needs of the national school curriculum. One key change had been the focus on employability in the Health Physiology programme to make explicit the range of career paths available to graduates. An overall focus was the development of independent learning skills (reflection) and preparation for the world of work.

Service user involvement in delivery

The involvement of service users in programme delivery and assessment had not been finalised. Service user involvement during first year of the programme, before students go on placement, was particularly useful. Some service users were keen to speak to students although others less so. Negotiations were ongoing in this area and several feedback formats were being reviewed.

Career destinations

Health Physiology (HP)

A range of careers was available to graduates of the HP programme including the civil service and medical companies such as Armstrong Medical Limited and Radox Laboratories. Recently a neurophysiology module had been introduced because currently there was no training in this area in NI. This had led to 3 to 4 graduates being employed in this area each year.

The opening of the proposed Graduate Entry Medical School on the Magee campus may provide an alternative route for HP graduates. The support of the NI Workforce and Healthcare services was being sought in promoting the programme. In addition, there was enhanced marketing activity directed at highlighting the range of career destinations available as well as the option of progressing to postgraduate study.

Career destinations – general

Students would be given a presentation on placements in Year 1 and 2. In addition, a 'Lunch and Learn' seminar had recently been established whereby graduate students would talk to current students in an informal setting about the range of career pathways available. Additionally, in Year 1, all students would undertake a 2-day NHS placement in a cardiac and a respiratory and sleep department. These opportunities would support students in making an informed choice as to which programme to follow. Whatever students' choice of programme, they would develop basic skills which would allow them to retrain in any area.

Some students have retrained in other areas such as medicine and teaching and prior to joining the programme had already made an informed choice on their career pathway. Others have adopted an entrepreneurial approach opting for careers previously unthought

of such as physical training and other science-based fields. Ulster's graduate qualities, which underpin learning and teaching, also offer other opportunities not readily associated with the subject areas. Students have also kept in touch with graduates of the provision drawing on their experiences in their chosen careers.

Values-based interview

At the end of Year 1, those students who wish to transfer to one of the specialism programmes would be required to undergo a 'values-based' interview. The interview would be conducted by a Health Trust representative, a service user and a member of academic staff. The interview would be undertaken using an agreed set of questions related to the values people working in the healthcare sector would be expected to display. Interviewees would be marked on a score sheet.

Induction

In order to increase student engagement prior to entry to the programme and support their transition into university life, a pre-induction task will provide students with an opportunity to begin the development of academic and independent learning skills. The task will be related to a module and will involve some reading and research.

Learning, Teaching and Assessment Methodologies

In developing the programme Ulster's Learning and Teaching Strategy and Integrated Curriculum Design Framework were followed. Regarding the latter, what was considered was, what a student would need to know, would need to be able to do and would need to be. The curriculum was therefore designed to align with these fundamental questions and module content was developed accordingly. A range of methodologies were employed using approaches such as the flipped classroom, problem-solving, traditional lectures and seminars, practice learning and employment of blended learning using the University's VLE, Blackboard Learn.

Programme and module learning outcomes

The learning, teaching and assessment strategy had been designed to ensure that both the module and programme level learning outcomes would be achievable by all students. Student feedback and best practice had been utilised in designing the strategy as had University regulations governing marking, external examiner reports, the University's annual monitoring process and NSHCS requirements. Team meetings had reviewed the learning outcomes across all modules to ensure that all programme level learning outcomes would be addressed. A wide range of assessment types had been utilised and assessment 'bunching' had been avoided. While there were no formal examinations during Year 1, students would take class tests comprising MCQs and short answer questions. A critical review of evidence-based practice was included in Year 2 and 3. Case and enquiry-based learning would be employed throughout. Previously, modules had included as many as 10 learning outcomes. However, this had now been reduced to 4 key outcomes in each module. Marking rubrics had been designed for each assessment based on the knowledge and skills that would be required to be demonstrated.

Placement

A dedicated member of staff, the 'Placement Coordinator', managed the organisation and administration of clinical placements. In allocation of placements, students would provide two preferred placement sites. The clinical competencies that students must achieve while on placement were set out in the placement handbook which each student receives a copy of. Practice Educators were responsible for the assessment of placement students. They undergo a 2-day training programme on assessment. Academic staff can supervise assessments. If a student fails an assessment, they have an opportunity to re-take it. If a student is absent from their placement, the time must be subsequently made up.

No issue arises regarding the consistency of assessments across different placement sites since all practice educators receive the same training. Recently, the Belfast Trust has appointed a Placement Coordinator which was very helpful in ensuring a consistent approach across the clinical placement settings within the Trust area. The School has developed a close working relationship with the Placement Coordinator.

It was confirmed that clinical practice educators carried out placement assessments and were 'happy' to do so. Any confusion that might arise as to where the responsibility lay might be because academic staff countersign all assessment paperwork.

While adequate placement sites were available in NI, students would have an opportunity to go further afield to sites in the Republic of Ireland and Britain.

Since the number of students on the specialisms programmes was capped by the number of placement sites available, a significant increase in student numbers would result in more students remaining on the Health Physiology programme. Student numbers were agreed with the Health Trusts and academic staff were mindful of not over-extending the provision.

Close relationships were maintained with clinical colleagues. This was made easier given that NI was a small region. At School level, there were regular yearly meetings with clinical staff. Additionally, many discussions took place daily. There were also regular stakeholder events involving the practice educators and the School placement coordinator would regularly visit the placement sites.

Effort had been made to build in more placement time in first year of the programme (rather than the current two days for each specialism area). In the immediate future, this would not be happening, rather, staff were trying to secure a more 'hands on' rather than an observational approach during the two days.

Integrated Curriculum Design Framework (ICDF)

The provision included seven 10-credit point modules which, while this was not in line with the ICDF, was necessary because firstly, their content related to professional body requirements and secondly, was better addressed in smaller module sizes.

Graduate Qualities – Global Citizenship

From the outset of the provision, students would be made aware that they were part of a global community and to be respectful of other cultures and identities. Learning and teaching would be underpinned by world-wide scientific practice and students would be encouraged to look beyond NI and include in their case studies and research topics themes that reflect a global context. Students would be required to be reflective, adaptable and resilient in developing and understanding their skill base in pursuing careers that they would not currently anticipate or foresee.

Reflective practice

Reflective practice would be first introduced in the Knowledge and Personal and Professional Development module in Year 1 when students would be required to reflect on their performance to date and where improvements could be made. In Year 2, this would be developed further. Those students on clinical practice would be engaged in constant reflection which would be recorded in a reflective log and reflective pieces of work.

Modules

In response to Panel questions regarding an apparent lack of practice in Year 1 and within the content of the following second year modules, the following response was provided.

Extensive content and apparent lack of practical underpinning in Year 1 Module CLS126 Scientific Basis of Healthcare Science

In module CLS126 Scientific Basis of Healthcare Science, during lectures and seminars and using BBL, students would be introduced to a range of physical material to gain an understanding of, for example, the application of medical imaging modalities, health information technology and epidemiology and public health and their relevance to healthcare science and health physiology. This module had originally been a 10-credit point module delivered in semester 1 but to cater for the extra content added, had been extended to a 20-credit point module to be delivered over semesters 1 and 2. The module would build on other Year 1 modules and students would receive and understanding of and hands on experience on the use of a variety of equipment.

Apparent lack of practice in second year modules CLS341 Cardiac Ambulatory Monitoring and CLS342 Sleep Assessment

Both modules had a significant amount of practical content. In CLS341, students would have opportunities to use a full range of practice equipment using skeletons and mannequins in a dedicated physiology learning suite. In CLS 342, Practical demonstrations and engagement in practical sessions would support lectures and provide an opportunity for students to develop expertise in overnight oximetry and basic interpretative strategies of simple and more complex assessments. Both modules would contain 'authentic assessments'.

Modules CLS342 and CLS343, each titled Sleep Assessment, appear to be the same module but have a different credit value (the former 10 credit points and the latter 20).

The difference is explained by the fact that the modules appear in different programmes; CLS342 in Respiratory and Sleep and CLS343 in Health Physiology.

Module CLS533 Introduction to Clinical Practice of Ultrasound Imaging in Cardiac Disease – this module requires students to demonstrate clinical competence but only appears in the Health Physiology programme – is this therefore a reasonable expectation?

This module was aimed at developing the theoretical knowledge and practical skills required to perform cardiac ultrasound, analyse data obtained, interpret, diagnose and monitor a range of conditions. It will develop a student's ability to understand the key issues relating to cardiac science pathology and pathophysiology. Students will have access to practical demonstration simulations for evaluation of acquired ultrasonic images and clinical scenarios to enhance the student's specialist clinical assessment, treatment, communication, clinical reasoning and evaluation skills. All clinical competencies addressed in the module will have scientific underpinning.

Module OTH301 Research Methods – is statistics and data management covered in the module?

Research is introduced in the first year of each programme in order to engage students from the start with evidence-based practice. Students need to recognise that these skills will be required by them regardless of the future path or career that they follow. These skills therefore need to be continuously updated. The second year Research Methods module is designed to stimulate intellectual curiosity on the part of students. It would be delivered using traditional lectures and seminars and would include statistics methodology and the management and analysis of qualitative and quantitative data. This would not be the only research component within the provision; many of the modules have research principles embedded within their content and, in particular, within the final year research project.

6 CONCLUSIONS

The Panel commended the Subject Team on the following:

- Proactive engagement with external stakeholders and clear evidence of close relationships with Health Trust partners and clinical placement staff, a good example of which being the establishment of a Placement Coordinator within the Belfast Trust.
- Dedicated technical support and investment in practice teaching technical aides and equipment.
- Introduction of a process whereby final year students present on their placement experiences to first year students on the Health Physiology programme.
- Cohesive, committed and enthusiastic subject team and the high level of support provided by them to students throughout their time on the programmes.

The Panel agreed to recommend to the Academic Standards and Quality Enhancement Committee that the provision within revalidation Unit 28B Health Physiology be approved for a period of five years (intakes 2020/21 to 2024/25 inclusive) for the minimum and maximum student intake figures detailed in Section 1 above, subject to the conditions and

recommendations of the Panel being met, and a satisfactory response and a revised submission being submitted to the Academic Office by 29 May 2020 for approval by the Chair of the Panel.

Conditions

- 1) That all issues identified in the appendix to the Panel report be addressed.
- 2) That the clinical competencies that must be achieved by students during clinical practice be included as an appendix to the revalidation document.

Recommendations

- 1) That the practice content in modules and input of service users in module delivery be made more explicit in relevant module descriptions.
- 2) For the information of all parties concerned, including students, that it be made more explicit who is responsible for the management and conduct of the assessment of practice competencies during clinical placement.

7 APPRECIATION

The Chair thanked the Panel members and, in particular, the external subject experts, for their valuable contribution to the revalidation process.