UNIVERSITY OF ULSTER

REPORT OF THE REVALIDATION PANEL FOR SUBJECT UNIT 16B1a: COMPUTING (UG/JORDANSTOWN/SOUTH WEST COLLEGE – Enniskillen campus)

5 December 2017

PANEL:	Dr D Barr, Head of School of Education, Ulster University (Chair)
	Dr R Moreland, Faculty Co-ordinator for Teaching and Learning, Faculty of Arts, Humanities and Social Sciences, Ulster University
	Dr S Czanner, Principal Lecturer, School of Computing, Mathematics and Digital Technology, Manchester Metropolitan University
	Professor T Crick, Professor of Computer Science and Public Policy, Department of Computing and Information Systems, Cardiff Metropolitan University
Revalidation Unit Co-ordinator:	Dr P Nicholl, School of Computing, Ulster University
In attendance:	Mrs K McCafferty, Academic Office, Ulster University

1   INTRODUCTION/BACKGROUND

The Panel met to consider the revalidation of the following provision:

BSc Hons Computing Science (with CertHE and AB exit awards) [FT]

BEng Hons Computer Science (with CertHE and AB exit awards) [FT]

BSc Hons Computing Technologies (with CertHE and AB exit awards) [FT]

BSc Hons Interactive Computing (with CertHE and AB exit awards) (previously BSc Hons Interactive Multimedia Design [FT]

BEng Hons Software Engineering (with CertHE and AB exit awards) [FT]

BSc Hons Computing Systems (with CertHE and AB exit awards) [PT] (Jordanstown/SWC)

All of the provision, excluding the BSc Hons Computing Systems, are of four years duration including a placement between year 2 and final year. The first year is common across all programmes. Year 2 consists of pathway modules and core modules such as Computer Networking, Systems Security and Software Development.

Students have the opportunity to transfer between the four programmes at the end of Year 1. A period of directed study to bridge into the required programme language of their new programme must be completed. This normally takes place over the summer between Year 1 and 2.

The BSc Hons Computing Systems programme is delivered at the Jordanstown campus on a part-time basis and was introduced as a part-time top-up programme for Foundation Degree graduates at SWC in September 2016.

2   DOCUMENTATION

The Panel received the following documentation:

- Course Submission
- Guidelines for Revalidation Panels
- QAA subject benchmark statement for Computing (February 2016)
- External Examiners' Reports for the last two years
- Preliminary comments from Panel members

3   MEETING WITH SENIOR MANAGEMENT TEAM

3.1   Overview

The Panel met with the Executive Dean, Professor Liam Maguire, the Associate Dean (Education), Dr Michaela Keenan, the Head of School, Professor Chris Nugent and Dr Peter Nicholl, Revalidation Unit Co-ordinator to discuss how the provision fitted within the Faculty's overall academic plans, and discuss such matters as the Faculty and School learning and teaching strategies, staffing and other resources.

The Panel asked the Senior Management Team to elaborate on the provision and to explain how it aligned with the University's 5 and 50 strategy.

The Panel heard that the provision was delivered by the School of Computing and that the ethos of the School was to offer students a supportive environment for their studies, providing them with the opportunity to achieve their full potential.

The Panel noted that the School of Computing provided a state-of-the-art environment for research in pervasive computing and artificial intelligence. It housed an Intelligent Environment with a range of leading-edge equipment and infrastructure to support research deployment and evaluation of Connected Health solutions, data acquisition and semantic analysis of user environments including dedicated smart laboratories with simulated living environments.

The Panel noted that the School had embraced the University's 5 and 50 strategy and was ready for the move to the new Belfast campus. The number of modules had been rationalised and it was anticipated there would be additional PhD students in 2018.

The Panel asked the Senior Management Team if the provision was sufficiently resourced and noted that approval had been given for 12 new appointments. Three positions had already been filled.

The Senior Management Team informed the Panel that they welcomed views from the local industry and frequently invited representatives to come into the University to discuss the provision. Widening access was also a core element within the School. Links with local secondary schools were continually being developed. The Panel noted that the Senior Management Team had consciously looked at what they had been doing and what they wanted to do in the future taking into consideration at all times the needs of industry.

The Panel commended the links with industry and asked how if these were formally maintained. The Senior Team explained that they had a Faculty Industrial Liaison Panel. Representatives from local companies were invited to come into the University twice a year. Feedback from these sessions was used to enhance the provision.

The Panel also noted that the School hosted a 'Tech Talk' lunchtime seminar series for all computing students. The Panel noted that the sessions were timetabled and supported well by students. Some of the companies who participated in the seminars included IBM, Allstate, Deloitte Digital, PwC and Kainos.

The Panel also noted that as part of the revalidation exercise the Faculty had surveyed employers using the Employability Development Opportunities Review Tool (EDORT). The Panel noted that 38 companies had provided feedback on what they wanted from graduates.

3.2 Role of Course Director

The Panel noted there would be one Course Director for the four related programmes, BSc Hons Computing Science, BEng Hons Software Engineering, BSc Hons Computing Technologies and BSc Hons Interactive Computing. The Panel questioned why one person was responsible for managing so many programmes and asked the Senior Management Team to elaborate on their rationale.

The Senior Management Team explained that there would be one single over-arching Course Director for the four programmes. The Panel noted that the Course Director would receive support from Year Tutors. Both the Course Director and the Year tutors would liaise with each other regularly. The Senior Management Team felt this would help provide students with a better experience.

The Panel also noted that students would have a Studies Adviser who would be responsible for approximately 15 students and deal more with pastoral care. The Senior Management Team emphasised that the main aim was to provide as much help as possible for students. First year students would have the opportunity for at least five meetings with their Studies Adviser, two of which would be on an individual basis. The Panel also noted that students would be encouraged to meet on a regular basis with their Studies Adviser so that issues are identified and resolved early.

The Senior Management Team informed the Panel that there had been a recent appointment in the Faculty's professional services area. This person's role would include providing administrative support to the Course Director. With the additional avenues of support the Senior Management Team felt that having one Course Director for four programmes was manageable.

4 MEETING WITH STUDENTS

The Panel asked the students what they most enjoyed about their programme. Some of the students stated that they enjoyed the group work which they felt provided them with good experience for going out on placement. Other students informed the Panel that they enjoyed the programming modules.

The students felt that the teaching and delivery of the provision was good and that the modules were interesting.

The Panel enquired about placement and noted that the process involved was well constructed and they understood what was required of them. The Panel noted that each student on placement had an academic supervisor and would receive two visits during their time on placement.

The students were also aware of opportunities to study abroad but none had decided to follow this route.

The Panel asked if there had been any difficulties in getting a placement and noted that there had only been a few problems. The Panel noted that students followed the same procedures in securing a placement, ie, application and interview.

The Panel asked the students how placement had helped them and noted that they felt they had gained valuable skills through working in teams. The final year students also felt that they were more focused when they came back to study and that placement had helped them with their time management.

The Panel asked the students for their thoughts on group work. The majority of students enjoyed some group work but were not keen on peer assessment as they did not want to say anything bad about their friends. Other students stated that they preferred to work on their own.

The Panel asked the students about the methods of assessment used and noted that they were considered appropriate. The students felt that coursework worked best for the subject area.

The Panel heard that students sometimes picked their own groups or were assigned to a group. The part-time students tended to choose their own groups and stayed in the same group as they progressed through the programme. Some students felt that it was better to be assigned to a group as you could peer assess better when you did not know the other members as well.

The Panel asked what happened if a member of the group was not performing as well as everyone else. The students appreciated that in industry they would have to work with a mix of people. If problems arose the students stated that they tried to sort them before seeking further help. Some of the students explained that they tried to analyse the strengths of group members and then delegate tasks accordingly.

The students confirmed that they understood individual marks were awarded as part of group work and that module outlines which clearly showed how marks would be allocated were provided.

The Panel enquired about the process involved in identifying a project in final year.

The students explained that they were required to choose two proposals which were they then discussed with an assigned mentor who was not necessarily matched to the subject area. The students confirmed that they were aware of the support available during their project.

The Panel asked if the programme workload was manageable and noted that the majority of students were content with the amount of assessments. The students advised the Panel that they had to learn to manage their time and avoid leaving assignments to the last minute. The part-time students explained that problems generally occurred when they got busy within their own working environment at the same time assignments were due to be submitted.

The Panel asked if the students were given an opportunity to raise any issues they had with the programme of other related matters and if these were addressed. The Panel noted that Staff/Student Consultative Committee meetings took place at least once during the semester. The students welcomed having a student representative they could approach and advised the Panel that any issues identified filtered through to the Course Team and addressed quickly.

5   MEETING WITH COURSE TEAM

5.1   <u>BSc Hons Computing Systems</u> (JN/SWC)

The Panel noted that the BSc Hons Computing Systems programme was delivered at the Jordanstown campus and that Levels 5 and 6 were also delivered as a top-up degree for Foundation Degree graduates at the South West College, Enniskillen campus. The Panel asked for clarification on the arrangements in place to ensure both groups of students were provided with the same experience.

The Course Team explained that students at South West College attended classes timetabled to coincide with the classes being held at the Jordanstown campus. The South West College students linked up to the lectures being delivered at Jordanstown via videoconference. The lecturers at Jordanstown had full view of the students at South West College. Staff at South West College were responsible for the tutorials and for providing other support for the students.

The Course Team advised the Panel that the exact same procedures were followed by both institutions to ensure the same student experience.

The Panel asked the Course Team to explain the Assessment Strategy used by both Jordanstown and the SWC and in particular how they decided which assessments to use.

The Course Team explained that they had reviewed when assignments were to be submitted to ensure there was no risk of bunching of assignments. The Panel noted that the assessment strategy reflected the University's policies and was applied at South West College also. The Panel asked if the University policy was restrictive but noted that the Course Team felt it gave freedom to use a mixture of assessments and reflective exercises.

The Panel noted the Variable Rate Progress (VRP) Model was a new curriculum structure endorsed by the University to provide students with the opportunity to 'progress through a programme at self-determined and variable rates, within controlled parameters'. The Panel noted that the model had been developed in response to industry and in particular the need to complete in three years or longer. The Panel noted that the VRP would allow students to decide the pace of their study.

The Team explained that modules related to each other were isolated to form 'stacks'. The Panel noted that the model would be available to South West College students giving them the opportunity to complete in either 2, 3 or 4 years. The Panel also noted that industry would be included more in the development of the provision which in turn would help provide relevant case studies and opportunities for sponsorship.

5.2   <u>Group Work</u>

The Panel asked how groups were selected and for confirmation that individual student marks were provided.

The Course Team explained that they randomly selected groups. Each individual had to show his or her contribution. The Course Team informed the Panel that they were able to check if a group had met and encouraged them to keep minutes and a record of who attended the meetings. This helped to identify issues and help resolve issues.

Structure and direction with regard to group work was given to the students and they were made aware of the marking criteria including individual contribution and marks.

The Panel informed the Course Team that the comments from the students about the programming modules had been positive and asked the Course Team what their approach was to teaching the subject. The Course Team explained that the first thing they stopped was using examinations. Practicals now took place before the lectures which provided students with relevant questions to ask during lectures and tutorials. The lectures also helped to clarify the theory.

5.3   BSc Hons Interactive Multimedia Design

The Panel noted that the BSc Hons Interactive Multimedia Design programme would be renamed BSc Hons Interactive Computing. The Course Team explained that the previous programme had seen input from the University's School of Art and Design in module topics such as graphic design and visual communication. The Panel noted that there had been a transition to more technical content and with the School of Art and Design developing its own programmes in visual media and communication the BSc Hons Interactive Computing programme would now be delivered fully within the School of Computing enabling a more focused marketing of the provision. The Panel also confirmed that they were content with the name change.

5.4   Programme Learning Outcomes

The Panel noted that the programme learning outcomes were identical for the four programmes delivered at the Jordanstown campus and asked the Course Team to explain their rationale for this decision.

The Course Team explained that they had conducted several discussions around how the programmes differed and in the end came to the decision that the programmes were very similar. The core elements were included in each programme. The Course Team advised the Panel that they wanted the same learning outcomes in Year 1 to allow students the opportunity to transfer between programmes if they so wished.

The Panel asked if students would receive a different experience in each of the programmes. The Course Team explained that each programme cohort would study together and that this would help provide a cohort identity. The Panel also noted that at the Open Days the commonalities between the programmes were explained to potential applicants. The Course Team informed the Panel that there were other differences between the programmes but that students still needed to know about the common areas. The Panel also noted that the subtle differences between each programme could not be easily presented in the programme specifications.

5.5   Programming II

The Panel noted that the Programming I and II modules had the same learning outcomes and assessment. The Course Team explained that the difference was in the language used, eg, Java, C#. The Course Team explained that students had the opportunity to focus on the language of their choice.

5.6   Assessment and Feedback

The Panel noted that the School's Assessment Strategy was aligned with the University's strategy. Feedback was timely and meaningful assessments were used. A number of modules had formative assessments to provide feedback which students could use to help them move forward. In first year, the Course Team explained that they had tried to put in low-level assessments to build student confidence. The idea was to develop independent learning and provide regular feedback to students.

The Panel commented on the new curriculum design principles which included the recommendation for two pieces of assessment in modules. The Panel noted that COM 360 had three pieces of assessment and asked the Course Team to explain their rationale. The Course Team stated that all the coursework for COM 360 was automated. The Panel noted that the material covered was accredited and that the professional body needed to see how the material was being assessed. The Course Team recognised that the 10 credit–point module did not reflect the curriculum design principles but advised the Panel that by trying to embed the content within other modules would not have the same impact. It would be harder to provide evidence for the professional body.

The Panel also noted that COM 435 had three pieces of assessment but the Course Team confirmed that the first piece of assessment was in effect a 'free run' and did not count towards the final result.

5.7   Pastoral Support

The Panel enquired about pastoral support for those students coming from different backgrounds, ie, students progressing from college to university. The Course Team explained that they had approaches that were modified each year to suit the groups of students.

The Course Team informed the Panel that over 90 students had joined their school in September 2017. In laboratory sessions and tutorials, college students were integrated with the other students. The Course Team explained that by splitting the students there were fewer issues and more friendships created. The Panel noted that Studies Advisers were also in place to support all students. The Panel also noted that the Attendance Monitoring Intervention Team (AMIT) tracked patterns of behaviour which helped to identify issues. Understanding why something was going wrong was the focus of the team. The Panel also noted that the profile of student cohorts was provided at the start of the year to show staff the make-up of the group, ie, direct entry students, etc.

5.8   Preparation for Placement

The Panel noted that all students studied the Professional Development module including direct entry students who may have already done a placement. Preparation for placement was thorough and included the completion of application forms and working on interview techniques. There was input from the Career Development Centre also. The Course Team emphasised that they wanted students to take employability on-board. Preparation began from day one of year one with students starting to build their CVs. The Panel noted that all modules were geared towards placement.

5.9   Process for Choosing Projects

The Panel asked the Course Team to explain the process involved for students in choosing their projects. The Panel noted that the students were randomly appointed a mentor and asked to provide two project proposals. The Course Team felt that asking students to choose their own projects worked well. The role of the mentor included helping the students to scale down their research or suggest ways in which it could be further developed.

The Panel asked if mentors were matched to particular projects according to their research areas. It was noted that if a mentor felt they were unsuitable they could suggest a colleague with a more appropriate background. The Panel noted that the time a mentor spent with students was timetabled and that the workload was the same for all mentors.

6   CONDITIONS AND RECOMMENDATIONS

The Panel commended the Course Team on the following:

- The quality of the documentation and the Team's engagement with the revalidation process
- The measures put in place to support the quality of the student learning experience, eg, the Attendance Monitoring Intervention Team (AMIT)
- The positive interaction from the students during discussions with the panel.

The Panel agreed to recommend to the Academic Standards and Quality Enhancement Committee that the provision be approved for a further five years (intakes 2018/19 to 2022/23 inclusive) subject to the condition and recommendations of the Panel being addressed and a satisfactory response and a revised submission being forwarded to the Academic Office by 5 March 2018 for approval by the Chair of the Panel.

Condition

i)   That all issues identified by the Academic Office and detailed in the appendix to the Panel report be addressed (appendix).

Recommendations

i)   That the Course Team make explicit the differentiation in the provision and in particular the specific programme learning outcomes relating to each programme (5.4);

ii)   That the Course Team consider what additional support mechanisms could be put in place to support the over-arching Course Director responsible for the provision (3.2).

APPRECIATION

The Chair thanked all the members of the Panel and in particular, the external members, for their valuable contributions to the revalidation exercise.