



Institute of Technology Sligo

School of Engineering and Design

School Planning and Programme Revalidation

Report

Wednesday 17th/Friday 19th April 2013

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Part 1

Executive Summary

In accordance with Chapter 5 of the Quality Assurance Procedures of the Institute, A School is required to produce a 5 year plan. The objectives of this plan are to:

- a) optimise the resources of the School for the purposes of delivering the highest standard and quality of education and to meet the School strategic objectives
- b) specify how the School will respond to the Institutes Strategic plan
- c) make proposals for changes in direction and focus of the School
- d) identify key performance indicators for the School and specify how these will be measured
- e) map the proposed actions to the strategic objectives
- f) update the procedures for monitoring

Following from this plan, the School is also required to undergo a detailed self-evaluation and review of the content of modules and programmes must be carried out. This is to ensure that the School/Department updates its programmes so that they remain relevant to students and to employers. The School of Science undertook such a review in the academic year 2012/13 and an external panel of experts visited the school in April to evaluate the new programmes. The Panel evaluated the proposals of the School against the following objectives:

- (a) Proposed improvements to programmes based on a formal feedback and evaluation process
- (b) Incorporation of feedback from staff, student and employers into the revised programmes
- (c) Ensuring that programmes remain relevant to learners needs, including academic and labour market needs
- (d) Ensuring that learning modes are compatible with academic standards, coupled with the life style of learners
- (e) Achievement of enhanced integration between all aspects of learning, teaching and research incorporating any new pedagogical thinking, where appropriate

A visit of the external Panel of assessors took place from Wednesday, to Friday, 17th, 19th of April, 2013. The Panel met with the President, School Management Team, Programme Chairs and the full complement of academic staff.

A draft report was circulated to the Panel members and corrections and feedback was sought. The School were also issued with the draft report to confirm factual accuracy. The final report was signed by the Chairperson and is due to be brought to the Planning and Coordination Committee of the Academic Council in May 2013. Once the Findings are accepted by the Academic Council, they will be implemented by the School. The achievement of these will be audited by the Chairperson within 6 months of completion of the process.

Findings of the Panel

The Panel acknowledged the initial work on the development of a School 5 year plan. The Panel recommend the revalidation of all programmes in the School of Engineering and Design for 5 years or the next Programme Revalidation (whichever is soonest), subject to the following:

Commendations

1. The Panel commends the School in achieving the initial phase of the restructuring.

2. The strategic development and attainment of sustained growth in the on-line learning activities is acknowledged by the Panel and IT Sligo's position as a sector leader.
3. The achievements of the School in research are notable and reflect the significant efforts made by some staff in this area.
4. The significant increase in retention following on from new policies in certain programme areas is commended and could act as a model for other programmes.
5. The consistently high academic standards of many programmes are acknowledged
6. The Panel recognises the significant transformation that has been managed within the School with the introduction of semesterisation across all programmes
7. The commitment, energy and professional curiosity of the staff is evident.
8. The student feedback on the staff commitment was very positive and encouraging and the good relationship between staff and students was clearly evident.
9. The defence offered by staff was strong and there was a positive approach to entering the debate.
10. The confidence of students is to be commended and reflects well on the higher education level of teaching provided by the School.
11. There were significant instances of good practice identified throughout the review, which are to be commended.

Conditions

With the exception of condition 2, the strategy for the other 5 conditions should be developed by the end of October 2013 and implemented in the 2014-15 Academic Year.

1. A structured workplace engagement, which is authentic to each programme and expressed as approved learning outcomes to be implemented across all programmes. Consideration to be given to the resources required to implement a robust placement strategy.
1. The Panel noted a number of inconsistencies, errors and omission in Volume 1 and Volume 2. These must be corrected in time for the timetabling of the 2013/14 academic year and should be audited by the Registrar.
- 2.

For individual Departments

Mechanical and Electronic Engineering:

3. Include Manufacturing and Materials in the Mechatronics Level 7 and 8 programmes. Characteristics of basic processes such as milling and turning, and advanced manufacturing processes such as rapid prototyping, laser, EDM, and plasma should be included as well as properties of metals, ceramics, wood, polymer, and fluids before completion of awards.

Civil Engineering and Construction:

4. The Panel discussed the proposed Title of the Level 7 BSc in Quantity Surveying programme and the Panel does not accept the proposed change to BSc in Construction Management and Costing. The Panel suggest that the programme team could use the Title "BSc in Construction Cost Management", for this Level 7 programme.
5. The major project in Year 3 of all Level 7 programmes to have a minimum credit weighting of 10 credits.
6. Where a module is examined by 100% Continuous Assessment, details of the number and type of assessment should be included in the module descriptor.

Recommendations

NOTE: The strategy in respect of all the recommendations should be developed by the end of October 2013. The recommendations that are being accepted should be implemented within two years.

For the Institute

1. Through the establishment of the Connaught University Alliance involving GMIT, IT Sligo and LYIT and linking with the Western Development Commission, IT Sligo needs to maximise its opportunities and identify its strategic priorities, niche competencies / offerings and timelines/targets for its participation in the regional northwest Technological University concept.
2. This Plan, developed in respect of the CUA, must provide greater clarity of direction for the staff in the School. It is critical that it be translated down to the Staff and Department heads to permit them to deliver on the School Recommendation No 2.
3. Provide more flexible models for staff to seek PhD awards based on publications or to undertake professional PhDs.
4. Revisit the new School structure and identity to ensure that there is greater integration and appropriate and equitable allocation of resources to Performing Arts, Fine Art and Creative Design activities
5. Ensure that there is an appropriate balance of teaching vs research
6. Improve structures and supports for staff wishing to pursue the diverse approaches to research activity and dissemination.

For the School

1. There is an onus on the School and each Department to be strategically relevant to the broader region, and the relevance of each programme should be clearly articulated in the context of both the operating environment and the marketplace. This process should be time-bound and delivered in line with the current strategic plan process.
2. The School needs to identify what are their strategic priorities and to have a Business and Operational Plan to provide the educational services that it is promoting, including greater refinement on its objectives and targets.
3. There are significant opportunities for resource efficiency such as greater sharing of modules across Programmes and Schools. The School should review its staffing resources and allocation and identify specific resource savings.
4. Take advantage of the new School structures to have greater interdepartmental co-operation on programmes
5. Consideration should be given to a common 1st engineering programme.
6. The number of separate programmes has grown considerably since the last Programmatic Review. This should be reviewed in light of HEA policies and also the overhead associated with separate modules.
7. There needs to be an agreed strategy relating to discontinuing/pausing a programme.
8. As was stated in the programmatic review of 2007, the School should develop strategies to provide more elective opportunities if appropriate such as making modules available from cognate programmes.
9. The ratio of contact hours per credit varied considerably across modules and this needs to be addressed in the context of the ECTS credit workload.

10. Enhance the interaction with industry through the establishment of Industry Liaison Group Advisory Boards, as appropriate for each department.
11. Address the space and resource allocation within the School specifically with providing more appropriate allocation to the creative practices, with particular reference to the integration of the Fine Art programme.
12. Give consideration to a strategic approach to the marketing of programmes in line with institute-wide initiatives
13. The School should ensure that semesterisation is implemented effectively across all programmes.
14. Any innovations that save resources should be appropriately rewarded.
15. To evolve best practice for the multidisciplinary projects to ensure these are conducted effectively to achieve the intended learning outcomes.
16. Review access to laboratories in the context of feedback from students who found it very difficult to gain non timetabled access.

Programme Specific Recommendations

Department of Civil Engineering and Construction

Recommendations

1. The Panel recommends that the Department of Civil Engineering and Construction establish an "Industrial Liaison Group", to build on their links with Industry in the context of school recommendation No. 10.
2. To improve programme delivery efficiency, the Panel strongly recommends that the programme boards for the Level 7 and Level 8 programmes in Civil Engineering review the second year modules to increase substantially the common modules.
3. To re-emphasize school recommendation No. 9, the Panel recommends that the allocation of contact hours across modules in all programmes should be consistent with the ECTS level and needs to be addressed in the context of the ECTS credit workload.
4. The Panel recommends that an inter-disciplinary project is created as a separate module for all Level 7 and Level 8 programmes in the Department.
5. The Panel recommends that work placement should be incorporated in all programmes and this should be actively pursued by the Programme Co-ordinators. This recommendation is made in the context of the School Condition No. 1 that a structured workplace engagement will be put in place and that the direct engagement with industry may be a placement process.
6. The Panel supports the Department objective of establishing further collaboration internally with the Mechanical, Electronic and Creative Practice programmes. The Panel commends the excellent start made by the Interior Architecture programme in this regard and supports their plans for further integration in later years.
7. The Panel commends the excellent work of the School/Department in the development of On-Line programmes. The Panel recommends that there is consistency across the School in the resource allocation for the delivery of On-Line modules.
8. The Panel recommends that the Programme Committees consider the inclusion of electives in the final year of all level 8 programmes and that these are selected from the School's existing suite of modules.

9. The Panel noted the high failure rate in year 3 of the Level 8 programme in Civil Engineering. The Panel recommends that the entry requirements for the Level 7 students onto the programme be reviewed with this in mind.
10. The Panel identified that there was a considerable variation in the weighting between continuous assessment and final examination. The Panel recommends that there should be greater standardisation in the approach taken to ensure that there will be consistency in the student effort and that the students will have clarity in the requirements.
11. The Panel recommends that a review of module syllabi should be undertaken to ensure reading lists are current.
12. The Panel recommends that the title of the module “Quantitative Studies” in year 4 of the Level 8 Quantity Surveying programme should change to reflect the mechanical and electrical syllabus content.
13. The Panel recommends that the topic “Cost Control” should be added to the syllabus content of the Level 8 Quantity Surveying programme.
14. The Panel recommends that the programme team for the BSc in Advanced Wood & Sustainable Building Technology should include a major project module in the Year 3 of the programme.
15. Research projects in Quantity Surveying , Construction Management and Construction Project Management need to be implemented.

Findings of the Panel for the Department of Mechanical and Electronic Engineering

Observations

1. The Department is tracking very well the requirements of industry and reacting promptly to these findings.
2. The Institute management team appears to be driving the Department toward Level 9 and increased research activity however paradoxically the market may also be driving them towards Level 6 provision in line with stakeholders such as IDA. A strategy needs to be developed to address this.
3. Lecturers need strategic clarity on where School priorities lie and how resources are allocated, how many hours are allocated for online delivery and for 1 ECTS for any module.
4. Academic team appear highly committed to the provision of online programmes and their support is to be commended.

Recommendations

1. In the context of school recommendation No. 10, the Panel recommends that the Department of Mechanical and Electronics Engineering establish an “Industry Advisory Board” to build on their links with Industry. Consistent with School condition No. 1 on workplace experience, the inclusion of work placement, more industrial visits, guest speakers from industry and preparation for a career in engineering should be incorporated in all programmes in the Department.
2. Review programme offerings and reduce the number of programmes offered.
3. In terms of resource efficiency there is potential for sharing of modules to achieve more commonality of module delivery at first year in particular in the areas of Mathematics,

Physics and Materials. Across programmes, there is possibly an opportunity to achieve commonality with other departments on delivery of modules in Quality, Management, Finance for Engineers.

4. From an operational point of view, the planning of resources needs reviewing and rationalising to focus on increasing numbers and on a smaller number of programmes. The level of evening hours teaching required to support programmes needs consideration.
5. There is a need to maintain quality of delivery and retention which is going well now but could easily suffer if not managed correctly in terms of support for online programmes, registration, marketing, Moodle system and student care.
6. Consider delivering online modules during the day rather than exclusively in the evening .
7. Explore including Green Belt as an elective or embedded in Mechanical and Electronic programmes
8. Consider change of title on Level 9 Energy programme to incorporate a more focused view of the changing landscape in the sector.
9. Greater levels of central support are needed for marketing of programmes (e.g. online search engine optimisation rankings).
10. There are excellent levels of knowledge base around online delivery, in particular in Energy Management programmes, this could possibly be franchised or delivered to industry.
11. Academic staff currently take both the academic and administrative workload for online students. A separate student support/student care resource should be available in parallel to the academic staff.
12. Attention needs to be given to staff retention, in particular for the delivery of online programmes. Any negative perception or impact to online students may result in adverse comments being made via online (social) media which could cause reputational damage.
13. In relation to programmes delivered online, the School needs to consider flexible arrangements for the delivery of examinations (i.e. for overseas students, different time zones etc.).
14. Review the balance between practical versus theory for 3rd Year Mechanical.
15. Recommend the inclusion of field trips as part of the programme of learning for 3rd year Mechanical.
16. In general for the Mechanical and Mechatronics groups recommend that the maximum lab class size is not increased (maximum allocation is 16 NOT 21 as happened at the beginning of the year).

Findings of the Panel for the Department of Computing and Creative Practices

Observations

1. This large Department, which has only been recently created and which incorporates a broad discipline mix, is to be commended for the manner in it is adapting to the considerable change involved.
2. The staff in each of the discipline areas: Computing, Creative Design, Fine Art and Performing Arts, are clearly very committed and there is a strong suite of programmes in place.
3. The opportunities that stem from bringing these disciplines together were acknowledged by the staff but it is recognised that it is still very early in the process and that it will take some time and on-going inter-disciplinary engagement for these to be realised.

4. The Panel observed that the disciplinary mix brings challenges in ensuring that any healthy tensions between disciplines are focused constructively, that resources are allocated proportionate to needs and in forging a common identity for the Department and School.
5. The Department is to be commended on its strong engagement with industry and the community, in their various guises reflecting the breadth of disciplines. Of particular note is its success in innovation voucher projects, in national and international competitions and for the fact that work placement is now part of all programmes.
6. The Department is to be commended for its plans to deliver the HDip in Science in Computing online from September 2013.

Recommendations

1. The Panel confirms that the word Innovation should be removed from the titles of the Creative Design suite of programmes i.e. BA (Hons) in Creative Design, BA in Creative Design.
2. The BA in Fine Art should include topics on collaborative and participative practices and on public art.
3. The Department should continue to contribute to the Institute-wide discussion on whether particular levels of attendance should be required by students.
4. Synergies between the disciplines within the Department should be explored.
5. The Department should include in student documentation a roadmap to highlight the programmes on offer and the progression pathways a student can take during and after completing a particular programme. In particular, the routes through the module suite should be made more explicit with pre-requisite and co-requisite modules being clearly identified.
6. In conjunction with the relevant Institute agencies and personnel, clear and comprehensive plans should be in place for the marketing of all of the programmes as well as achievements and opportunities, such as innovation vouchers.
7. Whilst recognising the on-going scholarship being undertaken by staff in order to remain well informed of developments in rapidly changing areas, there is considerable potential for the further development of research in the Department, including the documenting of research work that is occurring currently. To further this research agenda, the Department should:
 - a. identify its key strategic research themes and priorities;
 - b. Ensure that equitable regard is given to the different types of disciplinary research within the Department;
 - c. Prepare plans for the growth of its research in the context of the Institute's objectives and overall strategy.
8. The Department should endeavour to increase the proportion of staff with PhD qualifications. It should contribute fully to any School and Institute strategies for the provision of mechanisms by which this could be achieved and identify any barriers impeding this development.
9. The Department should proactively plan for its future role in regional collaborations in the context of the Connacht-Ulster Alliance.
10. In the context of the experience and expertise available in the broader School, the Department should endeavour to further expand its offerings online. The Department needs to review the capacity (including the technical capacity) required for enhanced delivery of on-line courses in this area.

11. The Department should review the allocations of space, technical resources and material resources for the disciplines to ensure an allocation for each proportionate to its needs.
12. The Department should establish an advisory Strategic Planning Group, representative of all the disciplines within the Department, to, inter alia, engage in environmental scanning of best practice locally, nationally and internationally and to assist in planning its future development and direction.

Part 2 Introduction

A Programmatic Review is a process through which a School assesses its progress comprehensively over recent years and sets down proposals and plans for future developments. Under the Institute's QA procedures, this must take place at least every 5 years, if not more frequently. It is a very significant part of the quality assurance process as it enshrines the concept of continual improvement and development based on self-evaluation. A Programmatic Review is a self-monitoring quality-assurance activity carried out by the Academic Council of the Institute.

At IT Sligo, the process is divided into two parts: a (a) School Planning, and (b) Programme Revalidation. The self-evaluation process includes production of documentation by the School and formal evaluations by an external review Panel. The overall process is controlled by the Academic Council. The Head of School manages the process within the School and the Registrar has overall responsibility for managing the process on behalf of the Academic Council.

Typically, the process takes 12 months to complete and the output is a set of documents that report on the findings of the self-evaluation and specify the Plans of the School and the proposed changes to the various programmes (with supporting justification). At the discretion of the School, the documentation may be considered by an internal Panel (a 'dry-run'), and subsequently by a Panel of external experts established by the Registrar on behalf of the Academic Council. This latter Panel comprises representatives from other 3rd level providers, state agencies and from relevant employer sectors. This Panel is expected to read through the documentation and visit the Institute over a 2 day period. A report of the visit is issued together with a set of conditions and recommendations from the Panel. The Panel makes specific recommendations in regard to the continued validation of the proposed modified programmes. This report is sent to the Academic Council for approval and subsequently the list of approved programmes is sent to QQI for inclusion on the order of Council for the new period of validation.

The School of Engineering and Design completed its last Programmatic review in 2007. An extension of the maximum five year review period was granted by the Academic Council on the basis of the significant changes in the School Management team and because of the restructuring of the School that both occurred in 2011/12. This current submission incorporates the considerable changes that have occurred in the sector since then and presents the proposals of the School in its efforts to prepare itself for the years ahead.

A visit of the external Panel of assessors took place from Wednesday, to Friday, 17th, 19th of April, 2013. The agenda for this meeting is contained in Appendix I. Membership of the Review Panel is listed in Appendix II. The list of documentation received by the Panel is contained in Appendix III.

Part 3: Meetings of the Panel of Assessors

The Panel held 5 private meetings at which a number of points were raised for discussions with staff of the School. A summary of the comments is contained in Appendix IV.

Part 4: Meeting with the President

The President welcomed the Chair and the Panel and outlined to the Panel the review process in the School and the stages involved. Under Delegated Authority it is a requirement to conduct such a review at least once every 5 years. The Institute takes this process seriously and welcomes the commitment and involvement from the Panel from academia and the world of work.

The President provided a brief presentation (see Appendix v). This addressed the mission and profile of the Institute, which focusses on supporting and driving the economic development of the region. Online delivery is an important strategy. Access and diversity is strongly promoted, as evidenced by the participation in the HEA initiative with Spring board. The President described the emergence of the Connacht-Ulster Alliance, and explained how this aligns with the national HE strategy. A core objective is to ensure that the quality and quantum of HE in the region meets the requirements of the region.

The President went on to explain the School Planning process and the key drivers for this, including the restructuring of programmes across the Institute. She highlighted the opportunities that arise due to the incorporation of the creative design programmes into the School. The planning process also concentrated on engagement with industry, professional accreditation, and research. She referred to a number of new businesses in the Innovation Centre, that have been started by graduates of the Institute. This is important for building the regional economy, and the President referred to, for example, the 22 on-campus incubation companies. A significant proportion of the students are taught online, and are based in the workforce in leading international and indigenous companies in Ireland.

The Panel asked for further clarification on the process and extent of the intended collaboration with the CUA partners. The President responded that, while the three institutions remain autonomous, collaboration will be at the programme level and there will be a sharing of recruitment decisions and delivery processes. It is the ultimate goal to attain Technological University status, as a single HEI, and that this will take 5-7 years. The model is one of a federal/multi-campus single university. There was a discussion about the national developments across the IoT and HE sections. The criteria are set for TU status, and the CUA are looking at areas of niche strength – such as environmental, biopharmaceutical and energy. The model is one of differentiated specialisms rather than centres of excellence. The Panel referred to the opportunities that are available to the collaboration due to the experience of the Institute in distance learning. The President confirmed that this will allow the CUA to reach well beyond perceived geographical boundaries including to students in other countries.

The Panel asked what the Institute is doing to meet the Technological University criteria for research. The President referred to the plans to develop a structured PhD and the increased funding allocated to staff up-skilling. Funds have also been provided to support research through Presidents Bursaries and Strategic Research Centres. There are currently some 90 research students. There is also work being done to develop a model of staff allocation to ensure there is time for research supervision and for making proposals for funded research.

The Panel queried the approach of the Institute to managing the changes necessary to respond to the evolving needs of industries and the economy. The President outlined the staff up-skilling and retraining to be ready to meet the changing needs of employers.

The Chair thanked the President for her contribution and clarification on the issues raised.

Part 5 Meeting of Panel with Head of School and Heads of Department

The Chair outlined the process for this session and welcomed the School Management team, who introduced themselves. He emphasised that this should be a positive experience and that all will get an opportunity to address a wide range of issues over the two days.

Presentation by Head of School

The Head of School gave a presentation on the School Plan (see Appendix vi). He noted that a basic objective of the process is to attain revalidation of the suite of programmes. Beyond that, there are other objectives related to professional recognition and better integration of the new discipline areas in the School. The Head of School went on to discuss the achievements and plans of the School relative to the strategic priorities of the Institute, including a range of online delivery initiatives and developments in research. The collaboration with local industries was noted, as evidenced by the number (57) of Innovation Vouchers. The Head of School identified other strands of regional engagement, including the winning of the Microsoft™ Imagine Cup, and the relationship with the Abbey Theatre. The presentation outlined a number of initiatives introduced in recent years related to teaching and learning. The Head of School asked the Panel to consider the opportunities that can be exploited around the unique set of creative design disciplines in the School. Peer assisted mentoring is also working well in the School.

In relation to student numbers, the Head of School referred to the initiatives to grow student numbers. Opportunities have been exploited in, for example, computing and in delivering to the workforce through Spring board. He concluded with the two key priorities, to grow online and to grow research.

School Restructuring

The Panel asked about how the School went about the programme and Departmental restructuring process. The Head of School outlined the initial process, referring to workshops that were held to identify, for example, design opportunities, and for common modules and topics. The Panel asked if this is an on-going process. The Head of Department of Computing and Creative Design (who was mostly impacted by the restructuring) explained how this is working on the ground. He identified a number of opportunities for cross-discipline synergies that are there to be developed. The Head of Mechanical and Electronics referred to the professional requirements of engineering programmes that can be better achieved with input on communication and presentation skills from the creative disciplines. The Head of Civil and Construction explained that this is an on-going process and that it takes time for staff to get to know each other and their particular expertise and skills.

School awareness of the external environment

The Panel referred to the most significant growth opportunity in the Gaming industry and queried how connected is the School to the larger Irish-based companies in this area. The Head of Department of Computing and Creative Design said that the staff did have connections but that these need to be developed further. The Panel asked about the arts programmes and sought evidence of how these have been integrated into, for example, the Gaming programmes. The Head of Department explained that there is a small level of integration with Fine Art staff lecturing to computing students. This needs to be further developed. For example, the Microsoft™ Imagine World Cup winners were a mix of creative design, computing and engineering students.

The Panel queried the response of the School to the down turn in the construction industry and the efforts to introduce commonality across programmes, for modules. The Head of Department of Civil and Construction referred to a number of examples where common modules have been introduced across, for example, Civil, and Quantity Surveying programmes and with other engineering disciplines. There are now common projects between mechanical and civil engineering students with involvement from the building construction students. The Head of Department of Mechanical and Electronic Engineering explained that the School is undergoing significant changes with a new management team. This team brings new expertise to the School

and there is strong support for the integration of creative programmes with engineering and technical programmes.

The Panel asked, from a QA perspective, how does the School benchmark itself and identify trends. The Head of School explained that benchmarking has been carried out nationally in relation to range of programmes and contact hours. Models of pedagogy have also been investigated, with a particular input from new developments at UL and QUB. In the area of design, learning has been integrated in project based learning using the Delft model.

Work Placement

The varying evidence of work placement across all programmes was commented on by the Panel and they asked what the strategy was on this. The difficulty of getting work placement in the construction industry was noted, and the provision of in-house, real-world' projects and of guest lectures was explained. The final year projects are developed in collaboration with local industry to ensure that there are real-world specifications and context. However, on the programmes delivered online there is significant level of work-based learning as most of the students are already in the work force. The Mechanical and Electronic department is currently in discussions with a number of local employers to introduce a work placement module. The ambition is that work placement will be on all programmes in 5 years. The Panel queried the impact on the current academic learning outcomes if work placement displaces one of the semesters. The School responded that, in the transition from year-long to semesterisation there are opportunities to have work placement during non-teaching times. They further noted that the learning that a student gains in work placement significantly enhances the level of learning of, and the learning process of students. The work-based experience of placement in the Computing suite of programmes and the Fine Arts programmes was discussed. The Panel referred to the challenges of getting good quality placements. The School explained the process of identifying good quality placements, the building of relationships with employers and the regular monitoring of, and visits with the student on placement, which typically culminates with a report and a presentation by the student. The industry representatives on the Panel noted the duration of the placement is important and that 9 months placements are more valuable to the students and the employers.

The cost of placements that take place over the summer months was queried. This refers to the cost of providing staffing support to placement students over this time of year (e.g. 1 hour of teaching to 10 placement students).

The Panel queried the capacity of the industry sector to provide the number of placements required by the School. The School referred to the needs of different industrial sector such as the polymers industry, where there are opportunities for placements.

Springboard

The Panel asked about the experiences of the School with Springboard, and in dealing with the challenges that this brings. The challenges of retaining students was noted and the difficulty of managing the student registrations and drop-outs during the delivery. The recent emphasis on work placement and employment of graduates was referred to. The School, however, confirmed that it continues to make proposals for Springboard programmes.

Change to a Semesterised structure

The Panel asked why was the decision made to semesterise and how was this received in the School. The Head of School explained that over 70% of the Institute is semesterised and that carrying two different delivery models is incongruent across programmes and costly. There was also a driver to semesterise to attain alignment with CUA partners. The departments met with other departments in the Institute who are semesterised to identify a suitable model. This was developed in conjunction with the Registrar's office, and is designed as a fully semesterised model other than for projects (which continue to be year-long). Particular attention was given to 1st year and efforts were made to enhance the 1st year experience. A 'soft' entry approach is provided in Semester 1, which is more continuously assessed, to allow the students time to settle in. Typically there are 4 final exams at the end of each semester. The School Management

noted the concerns of staff and are working to ensure a smooth introduction of the changed delivery model. The Panel noted the positive experiences with semesters in other HEIs. The more mature students respond particularly well with this model.

Activities as part of the Connacht-Ulster Alliance

The Panel opened the discussion on the CU Alliance and how this impacts on the School Plan. The School management confirmed that they have attended a number of meetings with their opposite numbers in CU partner institutions. Programme offerings and student numbers were compared and opportunities for common programmes were identified, including a single brand. There is now regular dialogue in relation to proposals for new programmes to ensure there is no duplication of offerings. Opportunities for using online delivery to progress the common delivery across the CUA were discussed. An example was provided of one student from Sligo attending a semester at GMIT. The three Schools have also discussed a common strategy to engage with regional industries to ensure that there is no duplication of effort.

What is the plan of the School in relation to cross-border marketing? The School pointed to the experiences of LYIT in cross-border collaboration which is being leveraged by IT Sligo. There is an aggressive campaign of social media, radio, newspapers and visits to Northern Ireland Schools.

The Panel asked about the plans of the School to achieve the TU criteria for research. The School, management commented that, achieving the target number of staff with PhDs is the primary objective. The School has also taken the decision to develop a mechanism to free up staff time allocation from teaching to allow time to prepare grant applications and to supervise research.

CAO entry

The Panel queried student intake and the CAO entry level points. Does the level of CAO entry points place any additional pressure on the School in terms of extra teaching, and how is this resourced? There was some discussion about Project Maths offered at 2nd level and how this prepares students for 3rd level. The School also engages in many ways with 2nd level students, for example in the STEPS programme and in providing online tutorials to 2nd level students. Regarding the CAO points, the School stated that its USP is that there is more practical content as compared with the traditional universities and that this accommodates a lower CAO points level. Catch-up tutorials are also provided. The School asked the Panel's advice about the introduction of a threshold CAO maths level at entry. Reference was made to a study conducted in TCD that correlates performance at 3rd level and CAO points.

Part 6 Meeting of Panel with Head of School, Heads of Department, Programme Chairs and School Administrative Manager

The Chair welcomed the Programme Chair persons and the Administrative Manager and outlined the range of topics that were addressed in the earlier session.

Student Numbers and Student Retention

The Panel moved on to student retention and how was the Institute dealing with the fall in student numbers and the perception that the construction industry will not recover in the near future. The School acknowledged the difficulties in addressing this internally and of retaining staff and programmes in areas of falling student numbers. It is challenging to convince the Executive Committee that these programmes need to be retained and that professional recognition needs to be maintained. The Panel noted the risk in stopping intake into a programme and the likely consequences that this may not be revivable.

The Panel queried how the staff numbers have increased while student numbers are reducing. The Head of School responded that this is a misperception as the increase in staffing is due to the programmes and staff that joined the School in September 2012. The Panel asked for an

update to Table 3.7 as this is misleading. There has been no net increase in staff. In response to a query, the Department of Mechanical and Electronic Engineering confirmed there are 50 staff in that department.

The Panel commended the School on the reported improvement in retention over the last 5 years and queried how this had been achieved. The School referred to the dedicated resource working on retention in Computing, the improvement in induction (and re-induction), the evenings with parents, and the organised programme of peer mentoring and peer assisted learning between students. The School noted the increased challenges for students in the tighter financial environment and increasing number of students with family commitments. The School also noted the key role of the 1st year coordinators, in monitoring and following up with students on a daily basis.

How is the School dealing with the falling student numbers and how are decisions reached to stop delivery of certain low-demand programmes? The School referred to the national discussion on reducing the number and range of Level 8 programmes and commented that this may not be a good initiative for the Institute. In any case, many of the programmes offered by the School share modules on 1st and subsequent years of the programme.

How is the School addressing the up-skilling of apprentices, in particular where the apprentice cannot finish an apprenticeship? The School provided examples of the Level 6 and Level 7 programmes that were designed and developed specifically for this cohort, with entry routes at each year, 1, 2, and 3 depending on the level of learning attained by the apprentice. The School is aware of some apprentices who experienced difficulty with HE modules – for example in Mathematics. Qualifier programmes are provided in electronics and mechatronics as a form of ‘bridging’. This has been observed to impact significantly on the success of apprentices who enter HE programmes.

CPD for Staff

The Panel opened the discussion on staff CPD. The School outlined the work of the Educational Development Unit in the past and the current significant plans of the HR function for staff training and up-skilling. The Heads of Department noted that there was no skills matrix across the Institute and this is work that needs to be completed within the School. It is proposed to implement the Engineers Ireland model for staff training and retraining (as presented in the appendices for Volume 1).

The Panel noted that there are 17 staff with PhDs and that there is a need for significant up-skilling of staff to meet the TU criteria. The School explained that the HR function has introduced incentives to support staff to undertake a PhD. Staff are asked to identify their own PhD topics (which are typically structured) and then to apply for the supports – which include fee payment, timetable facilitation and time given for publications and for funding applications. Reference was made to Table 3.5 in Volume 1 which states that there are 8 staff currently undertaking a PhD. There is also a Research Office that provides support for research proposals and supervision. The School commented that there are also other research-related TU criteria including publications, funding and active supervision that need to be met by the Institute.

Research

The School outlined the number and type of collaborations with other HEIs. Examples were given of Innovation Vouchers projects (e.g. collaboration with SF Engineering that led on to a full time job for a graduate), research collaborations with NUIG, and INTERREG SEM funded collaborations. Over the last 5 years the School won €6.5M in research funding. The target for the next 5 years is €10M. The School Management talked through the School Plan and targets as presented in Volume 1, Appendix E. In respect of the SEMs, the School held an industry consultation day with bilateral discussion on industry needs and what the Institute can do to meet these. Out of this a number of potential collaborative projects emerged.

The Panel noted that reference was made to the Western Development Commission, and the opportunities for CUA collaborative projects in the area of creative design. This was

acknowledged by the School and responded that the School is well placed to deliver to these opportunities. The Panel commented that there is an opportunity for the CUA to become the WDC creative driver and to get behind the Creative-West initiative. The School provided the example of the Imagine Cup projects that are typically blue-skies innovation that may lead to spin-off companies. Models applied elsewhere, for example in Spain, for bringing together academic and industry in a controlled environment were discussed. This is being applied here with a local project on redesigning the use of a building in Sligo. Students from Civil, Quantity Surveying, Interior Architecture and Construction Project Management are involved in this.

There is an in-house Research Office that provides a range of supports to researchers and the Technology Transfer Office in NIUG is accessible for the commercialisation of research. The Institute has been successful in commercialising research findings, particularly in the School of Science. This is being supported by Enterprise Ireland through proof-of concept and other funding.

How does the School manage the number of Innovation Vouchers where there is a relatively small number of staff involved in research? The School noted that the Innovation Vouchers scheme is an ideal first engagement with industry, building collaborative relationships that can lead to, for example, Innovation Partnerships. The Innovation Vouchers funding can be expended in a number of ways, including payment of research students. The Panel supported this route to winning bigger research funding. The INTERREG (KITE) project was discussed. This research allowed the School to develop online laboratories. This outcome is of benefit to full time as well as part time students. The School agreed with the Panel that funding was becoming more competitive. Strong collaborative partnerships are essential to ensuring successful funding applications.

The Panel noted that the research was tightly focussed around engineering disciplines and queried the research in Quantity Surveying and Construction Management disciplines. The School referred to research in civil engineering and collaborations with architecture.

The Panel asked if the necessary supports are in place to ensure that the School can achieve its planned targets. The School noted the current flexibility that has been provided (in freeing up staff for research) but commented there could be greater facilities to release staff for research and also in the provision of technical support for research. The School also suggested that a support structure to facilitate greater cross-discipline collaboration would be of benefit.

Online Delivery

The Panel moved on to discuss the activities of the School on online delivery. Clarification was provided on the breakdown between full time and part time students. The School explained that much of the practical work is supervised and assessed in a face-to-face mode (typically 4 times per year, where online students attend on campus). The programme content dictates the balance between fully online and face-to-face delivery.

The Panel queried the QA processes in relation to online programmes. The School explained that the programmes are validated in the same way as in-class programmes and that teaching, assessment and exams are identical to in-class programmes. There is no difference in quality assurance of Continuous Assessment between online and in-class programmes as students are capable of 'cheating' on CA in both situations. The School uses Turnitin© and is piloting online proctoring of exams taken online. The School is also in the process of implementing a USA based Quality Assurance audit (Quality Matter) for its online programmes. The School commented that there is a significant higher standard of performance for online delivered programmes over in-class programmes. This is attributed to the fact that the majority of the online students are mature and are paying fees (or fees are paid by their companies) for the programmes. The online delivery environment also allows greater co-learning between students with no geographical barriers and the students are typically actively seeking learning. Some further discussion ensued on QA for online laboratories and related to the delivery online.

The profile of the online learner was discussed. Online programmes are all provided on a part time basis and are targeted at worker or Springboard students. The typical learner is 35 years of

age and wants to up-skill for their career development. The long-term objective would be to also provide this mode of delivery to full time students.

The provision of online delivered programmes to a wider range of disciplines across the School was discussed. The School noted that Construction Management and Construction Project Management have recently been provided online. There are plans to convert the Civil and Quantity Surveying to online delivery. This will be discussed with the Professional body in the coming weeks. The target in this department is to grow from approximately 40 to 100 online students in the coming years, in these disciplines.

The School also referred to national targets for flexible learning and for up-skilling of the workforce. To achieve this there is also a requirement to develop recognition of prior learning processes. Specific industries are particularly in demand for online courses – such as the medical devices and polymer industries.

The Department of Computing and Creative Practices will be introducing its first online programmes in September 2013.

The School commented that there is no dedicated support for online delivery from IT Services. However, the systems are reasonably stable and breakdowns are infrequent. There have been problems in the past with the admission and registration processes for part-time/online students. This is being addressed within the Registrar's office with the implementation of centralised admission administrative support.

There was some discussion around the time to develop content for new online programmes and the staff allocation model for delivery. The School explained that the design and delivery allocation mirrors that for full time programmes, with some minor differences.

There was some discussion on the topic of professional recognition and the School provided clarification on the level of engagement in professional bodies, including Engineers Ireland, RIBA, SCS, PMI.

Part 7 Meetings with each Department to consider proposed changes to Programmes

Department of Civil Engineering and Construction

Staff in Attendance – Appendix VII

Panel members in attendance

Chair: Ms Maria Kyne

Professor Padriac O Donoghue, Mr. Joe McLoughlin, Mr Denis Coveney, Mr. James Griffiths, Dr. Roisin Murphy, Mr Michael Blaney

General discussion on the Department

Chair welcomed everyone. All introduced themselves. A short presentation was given by Trevor McSharry giving a departmental overview. The issues covered were

1. Staff overview 89% of staff with Level 9/10
2. Departmental highlights and regional engagement – Professional accreditations, 2 students PhDs, carpentry and joinery national skills award.
3. Programme overview FT and PT Large degree of commonality in L7 & L8 civil year 1 and 2. L7 & L8 Quantity Surveying Y1 & Y2, Interior design & Architecture 30% commonality.

4. Student forecasts 38PT 333 WTFT CAO stabilising but still in decline. Hope to boost numbers on-line.

5. Departmental challenges

- ECF
- CAO Demand
- Semesterisation Implementation
- Perception of Construction Sector
- Increasing work based experience

6. Departmental Opportunities

- Further collaboration
- Utilise On-line capability
- International Opportunities
- CUA
- Increase regional collaborations/activity
- Increase research

7. Feedback from Students

PANEL: What are the methods used

STAFF: Students surveys, focus groups, Graduate surveys utilising LinkedIn, Students feedback from programme board, student committee allows liaison between student reps and HoD & HoS

Module specific surveys and programme specific surveys also carried out.

8. Feedback from Externs

PANEL: How is Extern feedback captured?

STAFF: Yearly External reports received. Externs for Level 8 programmes are from outside the IOTI sector, L7 from within IOTI sector. Feedback from both Exams and CA received. Externs also invited in to view project work.

9. Feedback from Employers

PANEL: How do you liaise with employers?

STAFF: No annual Employer Liaison group.

Did carry out a focus group for Programmatic Review purposes. Use word of mouth feedback and feedback through Engineers Ireland. Had Industrial Advisory Panel in the past but this was disbanded.

10. Graduate Employability

PANEL: How have you considered graduate employability?

STAFF: Staff are interested in giving opportunities to people to who want to develop their interests in areas so don't always look at employability. Do have international accreditation so students have international opportunities. (outlined in vol.1) 2 students in year 4 have jobs lined up.

There is difficulty finding employment in Ireland but significant opportunity in Middle East, New Zealand, Australia.

IT offers more of a skills based programme which is more beneficial.

11. Integration

PANEL: Integration is important, the more you can do across disciplines the better for the graduate. It is Vital.

STAFF: Staff are aware that Integration is key and incorporate multi-disciplinary projects into years 3 and 4 of programmes. These are components of a module.

12 Delivery Methodologies

Civil – part time: 15 ECTS per semester rather than 30 for part time offering.

On-Line allocation; for every 2 hours on taught programmes, 2.5 hours are given to on-line, but this allocation varies.

13 International Students

PANEL: What International Students do you have?

STAFF: Have a lot of Erasmus students in y3 & y4. Have a lot of International students albeit they live in Ireland. Recent MOU with College in Canada will increase numbers 5 registered for September 2013 with another 7 expressing interest (these will be on-line)

Review of programmes

**Programme Title: Bachelor of Engineering in Civil Engineering with Embedded Higher Certificate in Engineering in Civil Engineering Exit Award (Full Time)
Higher Certificate in Engineering in Civil Engineering (Full Time)
Bachelor of Engineering in Civil Engineering Part-time**

Rationale for the proposed changes

- semesterisation,
- no significant changes for teaching.
- PBL year 1 to address attrition.
- PBL introduced in response to benchmarking and student focus groups. Response to IOTI Survey.
- No standardisation of hours looked at content of courses and best way to deliver these.

Retention Rates

PANEL: Retention rates low for Year 1 what are you doing to address it

STAFF: Giving students more practical based subjects in year 1 to keep them interested.

Students getting more fun activities to do throughout the year. More CA throughout the year so there is a chance to catch weak students earlier. PDP plan introduced to help students. Big emphasis in the Introduction to Engineering on communication between lecturer and student.

Continuous Assessment

PANEL: Explain variation in CA allocation and penalty for late submission

STAFF: Necessary depending on module being taught. Staff explained the penalty for late submission of assignments. All communicated well in advance to student

CAO Numbers

PANEL: Points have dropped significantly 280 to 140, what kind of applicants are you getting

STAFF: Points low due to drop off in numbers. 280 is meridian point. 93% retention when points went down. Smaller classes good for student, more lecturer attention went from 74-24 students in year 1.

**Programme Title: Bachelor of Engineering (Hons) in Civil Engineering (AB Initio)
Bachelor of Engineering (Hons) in Engineering in Civil Engineering (Add On)
Bachelor of Engineering (Hons) in Civil Engineering Part-time**

Rationale for the proposed changes

- semesterisation,
- no significant changes for teaching.
- PBL year 1 to address attrition.

- PBL introduced response to benchmarking and student focus groups. Response to IOTI Survey.
- No standardisation of hours looked at content of courses and best way to deliver these

Key Changes

Level 8 Final year project ECTS. Introducing changes in Assessments

PANEL: 6 subjects in semester 1 – students won't get to project until semester 2, would it not be better to bridge project over a year. 3 or 4 months is not enough time.

STAFF: Looked at this but are happy with their decision. They are conducting weekly meetings with students ½ hour is allocated so students still have contact in semester 1.

PANEL: Why is it 'Project', and not dissertation?

STAFF: Project is all encompassing and better reflects the work. Dissertation is more of an output.

PANEL: Pass rate Y3 is low how is this considered for progression, are you looking to change this.

STAFF: Yes, but L8 is a considerably higher level more intense a big step up for Level 8. Students are being trained in L8 to be an Engineer so the focus needs to change. It has to be more difficult.

PANEL: No intake for 2 years into this programme why?

STAFF: Would like an intake, commonality means it's not difficult to resource, however, CAO take up was too low. Staff anticipate a change this year.

PANEL: 55% pass rate with students in year 3 is this too low for moving to year 4.

STAFF: Possibly but the rate improves in year 4 with 70-80%

**Programme Title: Bachelor of Engineering in Environmental Engineering with embedded Higher Certificate in Civil Engineering exit award – (Full Time)
Bachelor of Engineering in Environmental Engineering – (Part Time)**

Rationale for the proposed changes

New Programme 1st intake September 2012

Semesterisation

Programme Design

Is Common with Year 1 & 2 Civil. Year 3 modules common with Environmental Science (already semesterised).

No work placement, not yet EI Accredited.

Programme Changes

Surveying Module 101, assessment strategy changed. Staff have limited number of final exams for retention purposes.

PANEL: How will you do Dissertation on- line?

STAFF: Year 3 project will be on-line but students will come in for a short block.

PANEL: Will graduates be more scientist or Engineer?

STAFF Engineer. 3 out of 4 modules were written and delivered by Engineers, so have more of an Engineering focus

PANEL: What route will graduates take?

STAFF: They can take L8 Environmental Science, Construction Project Management. If they choose Civil they need to do bridging studies. Staff are currently looking at developing L8 in Environmental Engineering.

PANEL: Is Ethics in year 2 the only ethics taught.

STAFF: No Ethics runs through a number of modules

PANEL: Do you teach UK and or Irish Ethics

STAFF: Interior Architecture is accredited with the Royal Institute of British Architects but staff teach both and do a compare and contrast exercise to ensure familiarity with both.

**Programme Title: BSc(Hons) Construction Project Management Full Time (Add On)
BSc (Hons) Construction Project Management (part-time Add On)
BSc Construction Management (Part Time)**

Rationale for the proposed changes

- semesterisation,
- No significant changes for programme.
- A couple of minor modifications to modules changed Contract Management to Construction Management. Employers recommended inclusion of more green issues.

PANEL: Risk Management why down grade this when risk is an issue.

STAFF: Risk has been incorporated into 2 modules so it is still very well covered

PANEL: What is the student base?

STAFF: 50% Quantity Surveying, 20% Civil Engineering and a few Architecture.

PANEL: There appears to be a lot of content in Yr 1 project Semester 1 & 2, what is the feedback on the programme

STAFF: Feedback from UK extern to up hours which was done. The general feedback is very good. The student numbers are strong, 28 last year, 26 this year with 13 on-line, plus 12 from Canada.

PANEL: Why title the programme "Construction Project Management"

STAFF: To differentiate it.

PANEL: What does contract law cover?

STAFF: Primarily Public works, some RAI, some re-measurement contracts, some NEC

Summary

1. There is an error in the paperwork for the Dissertation. This needs to be corrected immediately, credits etc. not correct.
2. Consider Integration, there is a big skills gap currently between Project Planning and Quantity Surveying.
3. Developers use main stream contracts are these covered enough

Programme Title: Higher Certificate in Engineering in Civil Engineering Full Time

PANEL: Working as a technician after 2 yrs need exposure to Cad and have good knowledge of packages.

STAFF: Students have exposure to GPS. It is up to date.

PANEL: Does Building Info modelling touch on CAD

STAFF: We are reviewing software. We want to teach engineering drawing not just CAD.

Key Changes

- CAD Android currently 2 hours increasing to 6 hours
- Engineering Science 101 - Contact Hours

PANEL: All modules 5ECTS but contact hours vary why?

STAFF: Depending on needs of module.

PANEL: Engineering Science 101 has 7 hours. This seems excessive

STAFF 2 hours practical 4 hours teaching, 1 hour tutorial

PANEL: 4 hours still excessive. More credits should be allocated. Disparity in hours should be at a minimum for similar credits.

Reduction in points a concern vis-a-vie pass rates and retention rates

PANEL: Why is there a separate level 6 when it is embedded also in the level 7 programme. A level 7 is more appealing.

STAFF: Different target Audience, mature students may be only able to commit financially for 2 years. Its more transparent for students and career guidance teachers. Students may not want 3 years but the progression path is still there.

PANEL: Where does a level 6 graduate fit into Industry? Ordinary degree is seen as the minimum graduates should have?

STAFF: More appealing to parents/career guidance. It is easier to attract students into the programme. It is useful for marketing purposes and gives students a chance to change disciplines after 2 years if they do not like Civil Engineering.

Summary of Issues

1. Is there a need for a separate Higher Certificate if one is already embedded
2. Low points
3. Where do graduates fit into the Industry?
4. Modules with same credits but different contact hours. 7 hours (4 contact) excessive if credits are not increased.
5. Good knowledge of CAD vital

Programme Title: BSc in Quantity Surveying NEW TITLE: BSc in Construction Management and Costing (Full Time) Full time, Bsc (Hons) in Quantity Surveying BSc (Hons) Quantity Surveying (Part-time ADD On)

PANEL: Do not understand why Title Change?

Students not getting what they signed up for if the title states Construction Management and Costing but they are actually Quantity Surveyors. The title is confusing to students and Employers. QS and Civil are strong brands globally recognised why are you watering QS down.

STAFF: Marketing Purposes, Students don't understand QS but Construction Management and Costing easily identifiable. Not watering it down, it is benchmarked against other Institutes.

PANEL: DIT are moving back to the title QS and rebranding it.

STAFF: Attracting students into QS is the goal but in order to progress even in the short term title change should help. Numbers are low, must do something to change this. Currently ITSligo have no offering in the CAO in Construction and Cost Management all other Institutes have. Good progression opportunity, students have an opportunity to go into L8 QS or continue into L8 Add On in Construction Management. Staff are under pressure for September 2013 and are taking this title change as a chance to see if it has an impact on numbers in terms of the survival of the programme.

PANEL: Concerned that people may view Construction Management and Costing as completely separate from QS. What is the Industry/Stakeholder Feedback on this?

STAFF: Programme is benchmarked against other IT s who all have this degree.

PANEL: Yes, however, these were developed to have a specific construction management output, this has a QS output

Key Changes

- Semesterisation

- Significant changes in programme itself over 4 years. Background to programme given.
- Input Economics and Estimates into programme and less surveying and CAD. In 10 days reaccreditation comes up. The Society has issued guidelines for QS and construction students and have asked all future new and programme developments to include their revisions. The programmes have included these revisions.

Modules

Year 1:

- CAD and Drawing was 10 ECTs, now its 5 ECTs Introduction to CAD
- Maths now incorporated into a number of modules, e.g. measurement, statistics and software and has been replaced by 'Introduction to Building Industry'.
- Interpersonal Transferable skills introduced to cover soft skills and address retention.
- ICT in Construction new module included on recommendation from stakeholder feedback
- Retained 'Surveying' in 1st year only. This is now common with Construction technology and Interior Architecture

Year 2

- Removed CAD and land Surveying and introduced 'Construction Software' its construction based and tied in with costings etc.
- Introduced Professional Practice in 2 modules, in report writing in Semester 2 of yr1 and Semester 1 of yr 2.
- Introduced 'Estimating Software' in yea 2

PANEL: Do you look at Health and Safety

STAFF: Yes, Site Management and Health and Safety law also in Contract Administration

PANEL: Have you looked at filling the skills gap in QS and Mechanical and Electrical

STAFF: Yes it is covered in Quantitative Studies. We agree we need more of it but resourcing is an issue.

PANEL: If this skills gap is covered then it should be used as a marketing tool.

PANEL: The teaching of Services should have just as great a focus as Construction Technology

PANEL: Reading list must be updated.

PANEL: Cost Control and Cost Reporting where is this covered

STAFF: Yr2, 2 new modules cost management 1 and cost management 2.

PANEL: You must be cognisant of bringing in an element of cost control, not simply budgeting.

STAFF: The multi-disciplined project covers this

PANEL: Estimating and Pricing methodology, how well is this covered, i.e. sourcing materials/sub-contractors

STAFF: Covered in Semester 1 Year 3 dedicated module 'Estimating' which is theory 1 x 5 ECTS

PANEL: Congratulations on including Excel, that is often necessary skill which graduates don't always have.

PANEL: Property Management/Facilities Management is a big area. Staff should think about that area when developing programmes

Summary

- Suggest being explicit in how 100%CA is broken down.
- Project Works Framework and Capital Works Framework Look at
- Reading List must be updated
- New Title of programme queried
- Parallel teaching of Construction and Services

Programme Title: BA in Interior Design (Full Time)Key Changes

- Semesterisation
- Shared Modules with new programmes in the department, i.e. Interior Architecture and Creative Practices, e.g. Year 1 Visual Literature and Visual and Material Culture Common

Programme Title: BA (Hons) in Interior Architecture RIBA Part 1

Programme now focuses more on General Architectural Education. Staff looked at contemporary environment.

Key Changes

- Semesterisation
- No new modules
- Updated professional studies module.
- Included areas into modules such as costing, urban studies, landscape, legal responsibilities.
- Commonality with other programmes, e.g. shared 5 ECTS modules in 1st semester of year 1 with Creative Practices and fine Art combined. Construction Technology, 5 ECTS combined in 1st year with QS, Civil Engineering and Environmental Engineering

PANEL: PSDP; look at bringing in other disciplines such as Engineers and QS

STAFF: Agreed more inclusion would be beneficial. Students do a project with Occupational Health and Safety but there is scope to include others.

PANEL: Concern expressed with 47% retention in Year 1

STAFF: Students learned early on that they need to have strength in 3D visualisation so either left the programme or moved to Interior Architecture. Staff are currently rewriting promotional material to emphasise the need for a high level design and creative skills.

Staff are running teams that have students from the creative disciplines, Fine Art, Creative Design, Performing Arts and Architecture and run a mentoring scheme for first years with these. This lasts for approximately 10 days. It is hoped that this will impact on retention.

PANEL: The title of the programme is confusing and does not really reflect the programme.

STAFF: Students will be specialists of Architecture, reimagining and recycling existing buildings.

PANEL: Are students prepared for Buildings that are preserved structures?

STAFF: Conservation is embedded into modules

PANEL: Do you focus on Irish or UK legislation

STAFF: Both. Students are familiar with RIBA and RIAI.

PANEL: It was noted that no staff in the programme is an associate of a professional body

STAFF: Yes, however, some have simply lapsed. Fees are an issue and the professional bodies do not have Academic membership. Staff are currently looking at student membership.

Summary

- The title was confusing
- Incorporate other disciplines into projects
- Consider membership of professional body

Programme Title: MA Interior Architecture Level 9

Currently not running as insufficient numbers.

Key Changes

- No Changes to Modules
- Semesterisation of programme

Long term goal to get Part 2 Accreditation

Programme Title: BSc in Advanced Wood & Sustainable Building Technology

New programme no graduates as yet.

Key Changes

Year 1.

- Maths taken out as a single module and is now integrated into other modules.
- Interpersonal Transferable Skills brought in to replace Maths.

Based on student feedback, students felt maths was irrelevant and there was too much of it. Therefore, change implemented.

PANEL: Highly commend the well kitted out sustainable building. Highlight renewable technology and how the disciplines interlink. Panel feel that you are in the sustainable building technology building, why is Advanced Wood in the title?

STAFF: Wood is the focus. Currently looking at progression opportunity for students and this will have a heavy focus on renewable energy. Looking at heat recovery with the mechanical engineers and the possible synergies there.

PANEL: Good Synergies could exist between what is in the lab and what QS are doing

STAFF: Have brought in Civil, Environmental and Quantity Surveying for projects.

PANEL: What Accreditation do you have?

STAFF: CIOB

Summary

- Title – Should it contain sustainable building technology
- Utilise other disciplines

Department of Mechanical and Electronic Engineering

Staff in Attendance – Appendix VII

Panel members in attendance

Chair: Ms. Fiona Cranley

Mr. Dermot Brabazon, Mr. Michael Walsh, Mr. Damien Owens, Mr Kevin Geoghegan, Mr. Mike Devane

General discussion on the Department

The Head of Department gave a presentation on the Department of Mechanical and Electronic Engineering. The Panel then asked the staff some questions:

PANEL: In the Staff's view, what is the number 1 priority?

STAFF:

- To pursue areas like Precision Engineering, Tool Making, C&C, Polymers etc.
- Implementing semesterisation
- To deliver some programmes 100% online for students abroad

- Introduce some more programmes at lower levels like Level 6 and below as called for by industry

PANEL: Can the department sit still?

STAFF: It is critical to maintain quality of online programmes by not reducing contact hours, maintain our reputation in that area.

PANEL: How feasible is it to grow online courses with so much international competition?

STAFF:

- There is still a need amongst many students for one to one contact. Lecturers are now using audio systems with which you can speak to the group or to just one person.
- Academic acceptance is still a big issue
- A lot of administrative work falls back on the online lecturer
- Need for more support from the Institute in order to grow online learning

PANEL: Regarding MOOC Applications, what are the consequences of getting 10,000 applications, currently there are 500 students?

STAFF: The lecturers have done a risk analysis, they can accommodate 1500 students. MOOC model is primarily peer review which cuts out/cuts down the amount of assessment. Regarding queries, they go into a forum.

PANEL: What is the ratio of lecturer to student online?

STAFF: For theory modules, there is no limit. For laboratory based modules, it is 16:1

One of the Panel members pointed out that there needs to be a business plan regarding online learning which needs to be structured. As online learning becomes more common, there is a risk that staff will be headhunted. It is also important to not lose sight of the fulltime undergraduate students.

PANEL: How does the group feel about research?

STAFF: It is very hard to grow online learning and increase research because of resource issues. In particular, there is very little time to write research funding proposals. Currently, there is a strong research element in level 8 projects. It is very important for lecturers to undertake research in order to stay ahead in their particular field.

PANEL: There is €250,000 available for staff to undertake PhD's – how is this distributed?

STAFF: it is ring fenced for PhD's which now comes from the PMDS process. Normally, fees, tuition and some travel are covered.

PANEL: Is there anything that would help the School to increase the amount of research?

STAFF: There will have to be some relief on teaching hours in order to pursue research, particularly if the Institute wants to become a Technical University.

PANEL: Are staff fully timetabled or are there hours for things like research?

STAFF: Yes, staff are fully timetabled.

PANEL: Is the plan to timetable 100% in the future?

STAFF: There will have to be hard decisions made where programmes are not viable, they will have to be dropped. This could free up some hours for research. There is a need to look at where the fees from online learning are currently being used. There is also a need to respond to shortages in industry.

PANEL: CUSTAFF: is AIT outside the loop now?

STAFF: No, there is still a need for clusters and this will be maintained.

PANEL: Is there an allocation for publications?

STAFF: No

PANEL: Regarding the MOOC model, can students use credits gained for an IT course?

STAFF: No, they get a certificate of completion only.

Programme Title: BEng in Mechanical Engineering Level 7 & Level 8

PANEL: What is the entry for Level 7?

STAFF: 5 D's. To move into level 8, you need a 50% average.

PANEL: Are there plans to have an *ab initio* level 8 in the CAO?

STAFF: No.

PANEL: Key proposed changes?

STAFF: Semesterisation, integrate project activity

PANEL: Rational for proposed changes?

STAFF: Interaction with industry, student surveys

PANEL: Are there plans for accreditation with Engineers Ireland for Level 8?

STAFF: No

PANEL: If I was a plumber, what can Engineering do for me?

STAFF: some trades people would get exemptions in year one. Most would apply as mature students and each case is looked at individually.

PANEL: Is it advertised?

STAFF: No

PANEL: What are the plans for work placement and how long will it be for?

STAFF: Engineering has lots of experience in this area which changed some years ago. Staff have liaised with some companies who have graduate programs. Una is currently a member of a working group on work placement for students across the Institute, no plans have yet been finalised.

PANEL: Are graduates tracked as to where they are now?

STAFF: No formal tracking. The careers office carries out a graduate survey each year at graduation.

PANEL: Any sense of how many get work?

STAFF: The Registrar's office would have this information. Fiona advised using LinkedIn as a way of tracking what students are doing. This is being encouraged in some of the courses.

PANEL: How does the School ensure subjects taught are useful to industry?

STAFF: From links with industry. The School had a focus group with employers last year. They also look at other colleges. Industry would like more "soft skills" like communications etc.

PANEL: Do students do presentations outside the IT?

STAFF: No, only in class or Interdepartmental. Presentations are done in most subjects now, starting in 1st year.

PANEL: Do the students have experience of leading a group?

STAFF: Yes, in group work.

PANEL: Is there formal assessment of team skills?

STAFF: Yes.

PANEL: Is there a standard number of contact hours for a 5 credit module?

STAFF: No, only guidelines. Practical modules tend to have more hours.

PANEL: Are the energy lecturers happy with the energy content?

STAFF: Yes

PANEL: What are the difficulties of commonality between the 2 departments?

STAFF: Can be too broad. Has to be balanced as students can leave if they feel they are not on the course they applied for so it affects retention. The Panel member agreed that there are pros and cons to having commonality between departments. It is usually done to reduce resources.

PANEL: What are the main problems students (particularly mature students) have with Maths?

STAFF: Calculus, algebra etc. Tutorials are put in place as well as maths clinics and online lectures can be viewed as many times as liked.

Programme Title: Certificate in Automation & Electronics

PANEL: Give a brief overview of the Cert in Automation & Electronics

STAFF: Started as a qualifier program for applicants who didn't meet the entry requirements for level 7. 50 places were offered this year. It is delivered online to mostly trades people who are in industry. There is a huge need to up skill operatives in industry. One of the Panel suggested looking at the module titles and try and make them more attractive to prospective students.

Programme Title: BEng in Electronic Engineering – Level 7 and Level 8

PANEL: What are the major changes proposed?

STAFF: Level 7

- Semesterisation,
- combined modules with computing,
- cohesive approach to programming,
- reduction in hours.

STAFF: Level 8

- Dropping nano-technology
- Increased credits in project

PANEL: Work Placement plans?

STAFF: Plans not yet finalised

Programme Title: BEng in Mechatronics – Level 7

PANEL: What are the differences in graduates between mechanical and electronic?

STAFF: Course started as 1 year add on to the Cert in Mechanical or Cert in Electronics. Graduates from this course will be multi-skilled.

PANEL: What type of work are the graduates getting?

STAFF: usually they are looking at industrial projects at the technical level. They are the bridge between electronic and mechanical – systems integration. There is 100% employment currently. Applicants are sometimes electricians who want to up-skill.

PANEL: How many are company sponsored?

STAFF: About 90% in a broad mix of companies.

PANEL: In Semester 2, is Human Relations common with other programmes?

STAFF: Yes. Also, Scada© now combined with CIM but no change in material.

PANEL: It was pointed out that Materials and Manufacturing appear to have been reduced. The Panel member asked that this be looked at again.

PANEL: Are there electives?

STAFF: No, they were considered.

PANEL: Where is Quality covered?

STAFF: Year 3, semester 5. Essential Quality. Quality & Project Management is at a lower level for fulltime students but the learning outcomes are the same, the part-time students have more experience on the ground and industry have asked for a higher level for part-time students.

PANEL: Can fulltime students access the online lectures?

STAFF: Yes, and they do.

PANEL: Work placements?

STAFF: Are talking to companies with a view to work placements. Also will try to integrate fulltime and part-time students by getting the part-time student to mentor the fulltime student. Also do site visits.

PANEL: Is Level 7 accredited by Engineers Ireland?

STAFF: Yes

Programme Title: BEng (Hons) in Mechatronics - Level 8

PANEL: Is Energy Management new to the course?

STAFF: No, it was in last programmatic review as well. Basic Energy Management is done in 1st year but the bulk of it is done in 4th year.

PANEL: What's involved in Energy & Utilities?

STAFF: Broad syllabus – energy policy, energy structuring, energy management at company level, energy efficient technologies, SMART grid etc.

PANEL: Is it only focused on Ireland?

STAFF: No, Policies are from EU

PANEL: There doesn't seem to be much emphasis on energy sources in marine – should be considered as it's a growing area.

PANEL: Maths 4 – what's covered?

STAFF: Unfortunately the lecturer has left the Institute but it is comprehensive and comparable to universities. There are also maths clinics, workshops, tutorials etc.

PANEL: Is level 8 accredited?

STAFF: No.

Programme Title: BEng in Polymer Processing – part-time

PANEL: Is there commonality with other programmes?

STAFF: Yes, in some modules

PANEL: How many modules do AIT deliver?

STAFF: 2

PANEL: What are the entry requirements for the course?

STAFF: Cert in Polymer or Mechanical or appropriate level 6

PANEL: What do people do afterwards?

STAFF: They are normally based in industry and see it as up-skilling

PANEL: Where are students registered and where do they do exams?

STAFF: Here in IT Sligo. Exams are in Dublin, Cork or Sligo. Some students are based in the UK and this can create problems with semesterisation exam timetables. If there could be flexibility in this area, it would be of great benefit.

PANEL: Are lectures live?

STAFF: Yes, between 6 and 9pm

PANEL: Is there an increased workload for the lecturer teaching online?

STAFF: Yes

PANEL: If a lecture is one hour, how much time is allocated to the lecturer?

STAFF: one hour for lecture, one hour for tutorial

Programme Title: BSc in Quality – Level 7 – Part-time

PANEL: Are there any changes required?

STAFF: No, just semesterisation. The programme has had on-going updates.

PANEL: Number of students?

STAFF: 30-35 L7, 36-40 L8

PANEL: Are there common modules with other programmes?

STAFF: No

PANEL: Could modules be on a mechanical programme?

STAFF: Maybe

PANEL: Systems simulation – what is it?

STAFF: Students perform simulations, sometimes used within their own industry

Programme Title: BSc in Quality – Level 8

No changes requested

Programme Title: BSc in Quality – Level 9

No changes requested

Programme Title: Cert in Lean Sigma

This is a standalone 15 credit modules but is integrated in 3 programmes.

PANEL: Have the lecturers considered embedding it in other programmes?

STAFF: Would like to have it in lots of other programmes.

Programme Title: Postgraduate Diploma in Quality – Level 9

No changes requested. The lecturers are in discussion with GMIT with a view to GMIT delivering some of the modules.

Programme Title: BSc in Manufacturing Management – Level 7 P/T

PANEL: Entry requirements?

STAFF: L6 or RPL

PANEL: How are contact hours affected by going from 10 to 5 credits?

STAFF: 2 five credit modules are done over 2 semesters

PANEL: Is there integration with industry?

STAFF: Yes, project is with industry

PANEL: How many Schools are involved in programme?

STAFF: 2, Engineering and Business & Humanities – 2 modules from B&H.

PANEL: Are changes requested in response to feedback?

STAFF: Yes

Programme Title: Postgrad & MSc in Energy Management – Level 9

12 online and 7 fulltime students

PANEL: Are they taught together

STAFF: combination of both

Numbers on programme are small so needs marketing. Panel suggested maybe changing the title? Also focus on where research is taking place as this is where the investment will be and ultimately, employment. Could maybe franchise the course to companies like the ESB?

Lecturers feel that there needs to be more support for online courses in areas like IT Services, credit card payments online.

Department of Computing and Creative Practices

Staff in Attendance – Appendix VII

Panel members in attendance

Chair: Dr. Gerard McKiernan

Mr. Ciaran O'Connor, Dr. Eamonn Jordan, Dr. Ingrid Hunt, Mr. Caoimhin Corrigan, Mr. Leo Scarff, Mr. Kevin Curran

General discussion on the Department

PANEL: Panel queried the process used for identifying changes to Programmes

STAFF: Each Programme surveyed current students, graduates, external stakeholders, industry. Some held focus groups.

PANEL: Panel queried links with Industry-is Industry aware of creation of new Dept., has Industry had input into Programme changes, is there a dedicated Representative within the Dept. with responsibility for links with Industry.

STAFF: Department very successful in operation of Innovation Vouchers-close working relationship with Industry, many SMEs benefit directly. End of Year show for Creative practices, invites to Industry and the wider community.

Panel commented on the unique position of the new Dept. within the School of Engineering and Design, with huge potential for further development/collaboration.

PANEL: the process/experience of the restructuring/move to new School/Dept

STAFF: Fine Art have issues with visibility within the School. Both Fine Art and Performing Arts have shortage of dedicated work space/studio space. Performing Arts also lack technical support.

Panel suggested that Dept should be encouraged to seek EU funding.

PANEL: CUA-how is Department responding

STAFF: Difficult to put strategy in place when there is no definite agenda for CUA. Performing Arts have student on semester in GMIT

PANEL: Learning Methodologies/Teaching practices

STAFF: Lack of sufficient studio/workshop space effects mostly Creative Practices, outside facilities have been used, Niland Centre, Hawkswell for example.

Computing Programmes have scaled back the level of CA, following Semesterisation at last Programmatic Review, CA had become overloaded.

PANEL: Is there a Plagiarism policy within the Dept?

STAFF: Institute wide policy is used for all Programmes.

PANEL: Research:-how will Department increase the number of PhD qualified staff?

STAFF: This will prove difficult, while staff are willing, time is limited. No reduction in teaching hours while pursuing PhD qualification.

PANEL: Online Learning within the Dept?

STAFF: HDip in Computing will commence online in September 2013. Dept are looking at developing online further.

Programme Title: BA in Fine Art Level 7, BA Hons in Fine Art Level 8

Rationale for the proposed changes

- Feedback from graduates/students/stakeholders and focus groups
- Benchmarking contact hours with other courses
- Commonality with other programmes

Key changes

- Work placement element
- Commonality with other programmes, BA in Performing Arts-Visual Literacy in Yr1
- Work in Context module in Semester 6 in preparation for students moving to industry

Programme design, modifications and title awards

Links with employers

- Programme Learning outcomes
- Linked to HETAC Standards

Student profile and programme delivery methodologies

- Level 7- majority are mature students
- Level 8 tend to migrate from level 7
- Move towards recruiting traditional CAO/School leavers

Work-based experience on the programme and Employment of graduates

- Proposal for work experience within industry, gallery intern, shadow an artist at work, collaborative projects etc. Students would be expected to report/present on experience. Traditional work placement model not appropriate for Fine Art industry

Research related to the Discipline

- Post Graduate qualification needs to be addressed
- Majority of staff on Programme are part time.

Programme Title: BA in Creative Design Level 7 and BA in Creative Design Level 8

Rationale for the proposed changes

- Based on feedback from surveys

Key changes

- Move towards virtual type skills
- Commonality with other Programmes (Visual Literacy)
- Title of course to be BA Creative Design for both Level 7 and Level 8

Programme Learning outcomes

- Linked to HETAC Standards

Student profile and programme delivery methodologies

- Good mix of traditional CAO students and mature students.
- Need for additional space, workshops etc.

Work-based experience on the programme and Employment of graduates

- Semester 6 –choice of placement, Erasmus or additional module

Research related to the Discipline

- Research vouchers very successful within Creative Design area. Close links with Industry as a result.
- Title of both Level 7 and Level 8 (both add-on and *Ab Initio*) to be BA in Creative Design. Remove mention of Innovation.

Programme Title: BA in Performing Arts

Process for identifying the proposed changes

- Covered in main discussion

Key changes

- Visual Literacy - being offered in common with BA Fine Art Yr1
- Separation of Theatre Design and Costume into two 5 credit modules.

Programme Learning outcomes

- Linked to HETAC Standards

Student profile and programme delivery methodologies

- Very diverse profile
- Personal Development plan for each student which is revisited on a regular basis

Work-based experience on the programme and Employment of graduates

- Graduates currently gaining employment, well received by employers

Research related to the Discipline

- Lack of support from the Institute is a barrier-no reduction in teaching hours when pursuing further education.

Summary

- Correction needed on Programme Schedules-80% attendance requirement on all modules

General discussion on the Computing Suite of Programmes

In relation to research for all Computing Programmes, many lecturers interested in pursuing research but feel that due to time constraints/teaching commitments this isn't possible. Any student research that has been undertaken, has not gone on to be published, issue of research tends to get "lost" as a result. The Panel recommended that, final year students could develop Case Studies for all research and in turn, make research and finding visible to others.

It was noted that the Computing section are leaders in the area of Innovation Vouchers/research delivered directly to Industry.

Discussion followed at end of meeting regarding the issue of student attendance requirement as part of the course syllabus. Some lecturers record attendance for their own records, however Group were divided as to whether a particular level of attendance should be enforced. Panel suggested that this should be Institute wide discussion.

Programme Title: Bachelor of Science in Computing in Software Development, Level 7

Process for identifying the proposed changes

- Surveys with graduates/industry
- Each Programme surveyed current students, graduates, external stakeholders, industry. Some held focus groups

Rationale for the proposed changes

- Feedback from surveys, changes in industry requirements

Key proposed changes

- Common first year across all computing Programmes
- Technical content updated to meet industry requirements
- Work placement 10 credits
- Professional development emphasis

Programme design, modifications and title awards

- Programme boards meet regularly to discuss course content.
- Staff constantly up-skilling/retraining to meet change in demand/course requirements

Links with employers

- Feedback used to develop programmes. LinkedIn groups.
- Aligned with Citrix/Cisco

Programme Learning outcomes

- In line with HETAC requirements
- Workshops

Student profile and programme delivery methodologies

- Not all progress to level 8, some offered employment following work placement

Work-based experience on the programme and Employment of graduates

- Professional development module to help students prepare for placement/CV development/interview skills. Feedback given to students on performance at interview/quality of CV.

Programme Title: Bachelor of Science in Computing in Software Development, Level 8

Process for identifying the proposed changes

- Each Programme surveyed current students, graduates, external stakeholders, industry

Rationale for the proposed changes

- Feedback from surveys, changes in industry requirements

Key proposed changes

- Changes minimal due to recent programme revalidation process conducted as part of the School of Business and Humanities (that was). Some technical content revised in line with industry requirement (mobile architecture and design). Project modules joined across two semesters to form a single year-long module

Programme design, modifications and title awards

- Links with employers
- Close links with employers

Programme Learning outcomes

- In Line with HETAC

Student profile and programme delivery methodologies

- Not all progress from level 7 due to various reasons, employment/financial

Work-based experience on the programme and Employment of graduates

- Excellent record of graduate employment, work placement in semester 6

Conditions and Recommendations

- Changes need to be made to schedules-mandatory/electives not recorded correctly
- Need for pre-requisite? Games modules may not be available to all level 7 graduates

Programme Title: BSc in Computing – Systems and Networking, Level 7

Process for identifying the proposed changes

- Each Programme surveyed current students, graduates, external stakeholders, industry

Rationale for the proposed changes

- Feedback from surveys, changes in industry requirements

Key proposed changes

- Service scripting now incorporated with Server mgt
- Standardised CA/Final Exam to 50/50
- Introduction of Citrix, Virtualisation and Cloud
- Reduced number of CA

Links with employers

- In close contact with employers in developing programme
- Excellent feedback,

Programme Learning outcomes

- In line with HETAC requirements

Student profile and programme delivery methodologies

- Some from electronics background
- Many mature students

Work-based experience on the programme and Employment of graduates

- Many companies seek IT Sligo graduates

Programme Title: BSc in Computing – Systems and Networking, Level 8

Process for identifying the proposed changes

- Each Programme surveyed current students, graduates, external stakeholders, industry

Response from surveys/industrial feedback

- Key proposed changes
- Scripting incorporated into virtualisation modules
- Material removed in 3rd year (for work placement) now offered in 4th yr
- IT Management moved to Semester 1
- Managing Behaviour in Organisation to Semester 2
- Use of “Real World” projects

Programme design, modifications and title awards

- Links with employers
- Close links with employers

Programme Learning outcomes

- In line with HETAC
- Meet with industry requirements

Student profile and programme delivery methodologies

- Varied profile

Work-based experience on the programme and Employment of graduates

- Excellent record of employment

Research related to the Discipline

- Student project work show commercial potential
- Difficult for staff to follow research, time taken keeping up with programme developments for changing course content

Programme Title: BSc in Computing - Games Development, Level 7Process for identifying the proposed changes

- Programme Board surveyed current students, graduates, external stakeholders, industry

Rationale for the proposed changes

- In response to student surveys/industrial requirements

Key proposed changes

- Mobile games dropped in semester 6 to facilitate work placement, some content moved to casual games
- Game play removed from GCA in 1st year.

Links with employers

- Games competition, networking with companies, feedback on course content

Programme Learning outcomes

In line with HETAC

Student profile and programme delivery methodologies

- Young profile-tends to mistake Games Development for Games playing

Work-based experience on the programme and Employment of graduates

- Excellent record of graduate employment, many employed following work placement.

Research related to the Discipline

- Staff member currently carrying out research in area (Neil Gannon)
- Students show interest in following research

Summary

- Synergies with Fine Art and Creative Design Programmes should be explored

Programme Title: BSc in Computing - Web Development and Creative Media, Level 7

Process for identifying the proposed changes

- Programme Board surveyed current students, graduates, external stakeholders, industry

Rationale for the proposed changes

- Feedback from surveys, changes in industry requirements

Key proposed changes

- No major changes as programme went through programmatic review with School of Business in 2011.
- Windows Programming 1 and 2 replaced with Fundamental of Object Oriented Programming 1 and 2.
- Web Design moved to Year 2.
- Software engineering in Year2
- Portfolio creation requirement in Yr3
- Work experience changed to 10 credits and as a result will take only three taught modules and one project module in semester 6.
- Server side web development with PHP and advance Server Side Web Development with PHP are replaced with Web Programme.

Programme design, modifications and title awards

- Links with employers
- Works closely with industry, requests for Content Management Systems.

Programme Learning outcomes

- In line with HETAC

Work-based experience on the programme and Employment of graduates

- Excellent record of graduate employment

Conditions and Recommendations

- Recommend inclusion of Marketing/Business type modules for students

Programme Title: Bachelor of Science in Computing, Level 7

- This programme is offered to transferring students who don't follow specialist area.
- Modules offered are mix from all computing programmes

Programme Title: Bachelor of Science in Computing, Level 8

- This programme is offered to transferring students who don't follow specialist area.
- Modules offered are mix from all computing programmes

Programme Title: Higher Diploma in Science in Computing, Level 8

Rationale for the proposed changes

- Going online to reach wider audience

Key proposed changes

- Deliver online from September 2013

Programme design, modifications and title awards

- Links with employers
- Close links with employers

Programme Learning outcomes

- In line with HETAC

Student profile and programme delivery methodologies

- Mature students
- Deliver online from September 2013

Work-based experience on the programme and Employment of graduates

- Work placement in semester 3-first group of graduates this year 2013

Programme Title: Higher Certificate in Computing, Level 6

Process for identifying the proposed changes

- Programme Board surveyed current students, graduates, external stakeholders, industry

Rationale for the proposed changes

- Feedback from surveys, changes in industry requirements

Key proposed changes

- Already been through Prog review with B/H
- Inclusion of software subjects now give students option to progress to yr3 of Software/Systems

Programme design, modifications and title awards

- Links with employers
- Close links with employers

Programme Learning outcomes

- In line with HETAC learning outcomes

Student profile and programme delivery methodologies

- Part time course

Conditions and Recommendations

- Need to correct credits on schedules

Part 8 Meeting with Student Representatives and External Stakeholder

Meeting with Student Representatives

PANEL: What are your views on Work placement as part of the programme?

STUDENTS: Mechatronics year 3 Facilities – Workshops second to none, as part of engineering, plenty of opportunities to use equipment. Hours in work shop. This is one of the best courses in the country. Hours should not be reduced.

STUDENTS: Mechatronics year 4: had no work at time, had the opportunity to come straight into year 2. There are many areas for improvement. For 3rd year only one day a week and fourth year 9 to 5, not 9 – 6. There is lots of mathematics, however without seeing the practical application. We are only doing theory, no interaction with industry. No feed-back from industry when students apply for jobs, which they do on their own. The course covers a wide range – projects using lab view this year.

PANEL: In the areas of Materials and manufacturing, what is the technical exposure?

STUDENTS: Lab time using reading, more automation and electronics. Students would like to focus more on your suggested topics.

PANEL: Is there enough lab time?

STUDENTS: First year mechatronics: not enough practical v theory. Need more Practical time. An hour of theory and an hour of practical was recommended by student.

PANEL: Would you be aware what an engineer would do in Industry?

STUDENTS: 3rd year student: the mechanical engineering students haven't had a field trip to industry.

PANEL: Project element – was it one of the most important learning experiences?

STUDENTS: Very important – design and build essential. YEAR 3 – high percentage of project work.

PANEL: Are you all full time are there any part time students

STUDENTS: No

PANEL: How much emphasis is there on cost control experience?

STUDENTS: Did a joint project with Quantity Surveying and Civil Engineering.

STUDENTS: Two mixed messages from supervisors- You have a budget – you don't have to worry about a budget

STUDENTS: More communication between supervisors from 2 different programmes regarding the same project.

PANEL: it is common for this to happen in industry too.

PANEL: What was your experience of the student mentoring programme in first year?

STUDENTS: It was useful. 1st year electronic: better if mixed with students from different engineering course, so you get to meet other students from other engineering courses, It was recommended to rotate the groups, .i.e. move to a different table for each of the 56 weeks.

STUDENTS: Fourth year student mentor to a first year – it certainly helped to make students feel at ease.

PANEL: Where there any students that were going to leave a programme, and didn't leave, why?

STUDENTS: Performing Arts – lecturers noticed that once week she wasn't performing well – the lecturers approached her and because of this she stayed.

PANEL: It seems that the people very good but the integration is very poor – do you feel enough taking place?

STUDENTS: Yes student felt good to mix with other students.

PANEL: Why you decided on IT Sligo?

STUDENTS: Close to IT Sligo as from mayo.

PANEL: How do you find assignments?

STUDENTS: Assignments fine. 2 girls in class

STUDENTS: 4th Performing Arts – acting performance space need resources for acting – black box, need more for break-away performance and rehearsal needed.

STUDENTS: Creative Design Block L – Resources – have oldest computers, need lap top, very costly.

STUDENTS: Resources – printing needed.

STUDENTS: 4th year Art – MAC lab not linked to the college.

STUDENTS: Interior Architecture – blessed to have excellent printing facilities – they are offered free printing.

STUDENTS: Fine art NO printing.

PANEL: why IT Sligo?

STUDENTS: For Fine Art – Design Students - Talking about lack of resources and despite those things, the staff are very creative and have provided a lot of resources.

PANEL: If someone asked why you came here, what would you say?

STUDENTS: This is the only IoT that covers design, costume, set, acting directing and a wonderful course (Performing Arts). There is a lot of things that need fixing however – this is a small course, everything is hands on, very one to one. Like a family, all group based.

STUDENTS: Fine Art 4th year – brilliant course, excellent lecturers.

STUDENTS: other comments:

- Not enough cross pollination. Needs to be more cross dialogue between the various programmes.
- Lecturers are very one to one. Lost hours half way through the year.
- Lecturers very good even teaching for free.

PANEL: What would make you a better School of Engineering?

STUDENTS: Mechatronics 4th year – need a supervisor in the project room - More project time.

STUDENTS: Fine Art – great facilities – not allowed to use machines without supervision – room lying idle.

STUDENTS: RECOMMEND – More access to Laboratories

PANEL: What are your views on Class sizes?

STUDENTS: 1st year Performing Arts divided into two groups of 14.

STUDENTS: Engineering common maths - All grouped together too many in one class.

STUDENTS: 41 in mechatronics divided into 2 classes 20 and 21 and labs with 32 computers so some were denied computers. 16 spaces – do not bring 21 in the class.

STUDENTS: Interior Architecture – Blessed

STUDENTS: Any direction in Computer – work placement received help with cv in 4th year – careers office pass on job opportunities to students. Students can ask lecturers to get help.

STUDENTS: A problem in networking and systems – 3rd year group and 4th year. Lecturers have difference of opinion as they are given 2 different opinions what should look thesis.

PANEL: Do you have a dedicated supervisor?

STUDENTS: yes

PANEL: Do you have any course delivery or materials provided on line

STUDENTS: yes, some students ignored this.

PANEL: Is the thesis progression regularly supervised throughout the year?

STUDENTS: Yes and no, depends on lecturer.

PANEL: Are they stand alone projects?

STUDENTS: Yes. The lecturers need to be agreed on the projects, similar problems with others.

PANEL: Do you find it difficult to find employment, architects?

STUDENTS: The course seeks to identify areas of specialisation – be adoptive reuse and think outside the box for jobs.

PANEL: What are the views on professional validation and RIBA?

STUDENTS: yes, this is important and will be of benefit for employment and will open up new opportunities.

PANEL: Tell is about your student experience – for students who have not said anything.

STUDENTS: First year Performing Arts . Alternated lecturers with all different acting lectures, this is very beneficial.

PANEL: What are the view do computing students?

STUDENTS: We are all in a common first year. This is good for meeting a wide group of friends, great experience, work on assignment together with the entire first year.

STUDENTS: 2nd year web student – work well together, due to friends made in the common first year. Gives good opportunity to settle in and progress in the right decision.

STUDENTS: There is a split opinion – so didn't get a chance to take all the modules.

PANEL: What are the views of the 4th Year Games class?

STUDENTS: Disappointed there were not games in 4th year –software.

PANEL: Students who had to move Schools, were you aware, does it matter?

STUDENTS: Beneficial, able to access more resources

STUDENTS: Design studio on other end of college – difficult to print.

STUDENTS: Easier to access resources for Performing Arts for some things.

STUDENTS: Access to material in another building and the price has gone up.

STUDENTS: 2nd year fine art - Ceramic student, fantastic equipment however no access, if there is no engineering staff member or tutor in building

STUDENTS: 2 hours only in drawing, in the evening.

PANEL: What is the level of engagement with industry?

STUDENTS: General Mechatronics – want more input from the industry. Need to understand why we are learning topics and how this links into industry. This would also encourage students to stay on the course – should be more linked into industry.

STUDENTS: Fine Art – have a visiting artist every week – meeting and showing skills includes international visitors for a few hours weekly. Very beneficial and could work for other courses.

STUDENTS: Performing Arts: has a great link with Abbey theatre, actors and designer can visit. Designers get great opportunity to meet set designers. The visiting lectures for ART also starting to increase.

STUDENTS: Engineering Ireland were visiting for Engineers Week in February - but the engineering students were not contacted in advance.

Meeting with External Stakeholders

The list of external stakeholders is in Appendix VIII

Panel members in attendance

Chair: Mike Devane

Panel: Kevin Geoghegan, Denis Coveney, Dermot Brabazon, Caoimhin Corrigan, Roisin Murphy, Ciaran O Connor, Leo Scarff

The Chair outlined the process and what were the objectives of the School review process. He asked the visitors to make observations on the contribution of the Institute and the graduates to employers and the economy of the region. The external stakeholders then commented as follows:

GMcC - commended the Institute in adopting the Microsoft and Cisco certification into the computing programmes. He commended the engagement of the computing programme staff with the industry and the way in which they incorporate proposals made by industry into the programmes.

He also noted the contribution of the Institute to the region. Students come from the region and outside the region.

CC - impressed with the level of response of the Institute to the needs of 1st Polymer. The cohort of students, based in the workforce, needs particular care and attention which has been forthcoming from the Institute. IT Sligo has also worked with Forfas and Expert Group on further development opportunities for training in this area. The view of the industry is that this training has made a difference to employees in respect of their up-skilling and career opportunities.

CB – Referred to his engagement in the wood technology course. He suggested that the course would benefit from a more structured way to engage with local suppliers to see the industry in practice. There is an increasing impact on products from abroad on the economy and there is a strong need for students to be training on specialist skills on this area to be capable of innovating regional product development.

SL- following from his experience with architects and engineers, he commented positively on the quality of the graduates from the Institute. He referred to the work of Engineers Ireland and the proactive support from the Institute in working with the youth and with local companies to promote engineering as a career. He would welcome opportunities to build on this and to work more with the Institute in promoting engineering to young people. He confirmed that, particularly in recent years, there is open and frequent access to the Institute and staff.

JC – confirmed that the calibre and expertise of the graduates (in QS) is of a high standard and meets the needs of the industry. She is a graduate and found her education to meet her career needs.

AL – In the area of creative arts, there has been a high level of engagement with the staff and students of the Institute. Fine Art students need to be given opportunities for cross-collaborations with other disciplines, which is important to public art in current practice. The national developments in the field of public animation can benefit significantly from the contribution from Fine art and the Institute could work closer with this industry. While there is an awareness of the opportunities for cross-disciplinary collaborations, the Institute could do more (as do other Arts Colleges) to exploit the internal opportunities in this area.

MC – He has a long involvement with IT Sligo in terms of recruitment of graduates and in up-skilling of their workforce. The development of distance and online programmes at the Institute started with Masonite and the company and staff have benefits from this. Many of the staff who undertook these courses have progressed rapidly through the company. He noted that the graduates of IT Sligo programmes should be capable of thinking outside the box. Michael was a student at IT Sligo and is now an external examiner. This has changed his perception of how the education process works. He commented that some exam results decisions were made at the

exam boards that could have been made by staff themselves before the meeting. The existence of the Institute in the region that has trained their employees is important within Masonite at a corporate level.

AG - Outlined his industry sector in product design and explained its needs. He is a graduate of the industrial design course and his company has employed many graduates (15) over recent years. They have found the graduates to be of a good standard and have returned to the Institute to recruit new graduates when required. The company has delivered guest lectures to students. The skills set of the graduates has widened and improved and are appropriate to meet the demands of industry. Bringing this programme within the Engineering Design School is a positive development as it brings the designer closer to the production processes and graduates will benefit from this.

A general discussion ensued. Reference was made to the successful Science week event week and that this could be opened up to the Arts.

There was a discussion on the topic of placement. The construction industry would welcome the incorporation of placement into the programmes and this company would positively consider taking placement students (which it currently does from other colleges). The placement should be of 6 months duration (too long might result in the student not returning to college). The importance of a structured programme of placement with real learning was emphasised (e.g. an agreed programme of work between the college and the employer). Some representatives referred to personal experience of placement and the potential for this to open up future employment opportunities. Placement provides an opportunity for the employer to observe the student in the workplace. It is important that the employer wants to take on the placement student (i.e. not simply doing a favour). For small businesses in the current economic climate, the issue of payment of students is a problem, and there should be less emphasis on the student expecting payment for the placement.

The Panel asked about views on course content. From the manufacturing perspective, learning on lean manufacturing would be beneficial. Also basic communication and presentation skills are essential to all working contexts. This point was acknowledged by the Panel and aligns with their observations of the programmes.

The Panel asked about comparisons of experiences between online delivery and face-to-face learning. Masonite had experienced both modes of delivery and these have been found to be effective. It depends on the learning. Some find the online delivery to be lonely. Also, courses delivered by distance can also suffer from the lack of hands on experience of practical topics. Online learners, accessing lecturers remotely, might not get the same level of attention or access to lecturers as the campus based student.

The Panel referred to the development in HE nationally and the emergence of the Connacht-Ulster Alliance, and asked for views if this was a positive development. Related to this was the greater emphasis on research that is likely to develop within the Institute as it pursues this objective. The view was expressed that this is a positive development- reducing the number of similar programmes delivered nationally. On the other hand, concerns were expressed with the removal of programmes (e.g. from Letterkenny to Galway) would be considered as a reduction in local educational services. It is important that management considers the needs of the region rather than the immediate locality needs. There is an opportunity to build up expertise in niche areas that can be combined with expertise in the other partner IOTs. There should be a common educational vision for the region, such as the 2040 group in Galway and similar vision statements in Cities around the world. A proposal was made that a seminar could be held on the future of education.

In the Arts area, this would be considered a positive development. The expertise in Galway (textiles and ceramics) and in Letterkenny (film and animation) would Sligo well with the offerings provided by Sligo.

Reference was made to the innovation centre and the opportunity for external entrepreneurs to use the services offered by the centre. There was a lack of awareness of this facility and there should be greater promotion of these services.

Part 9 Follow-on meeting with the School

This meeting was deemed to be unnecessary by the Panel, who agreed that they had an understanding of the School and the key issues sufficient to report on the findings.

Part 10 Findings and Recommendations

Findings of the Panel

The Panel acknowledged the initial work on the development of a School 5 year plan. The Panel recommend the revalidation of all programmes in the School of Engineering and Design for 5 years or the next Programme Revalidation (whichever is soonest), subject to the following:

Commendations

1. The Panel commends the School in achieving the initial phase of the restructuring.
2. The strategic development and attainment of sustained growth in the on-line learning activities is acknowledged by the Panel and IT Sligo's position as a sector leader.
3. The achievements of the School in research are notable and reflect the significant efforts made by some staff in this area.
4. The significant increase in retention following on from new policies in certain programme areas is commended and could act as a model for other programmes.
5. The consistently high academic standards of many programmes are acknowledged
6. The Panel recognises the significant transformation that has been managed within the School with the introduction of semesterisation across all programmes
7. The commitment, energy and professional curiosity of the staff is evident.
8. The student feedback on the staff commitment was very positive and encouraging and the good relationship between staff and students was clearly evident.
9. The defence offered by staff was strong and there was a positive approach to entering the debate.
10. The confidence of students is to be commended and reflects well on the higher education level of teaching provided by the School.
11. There were significant instances of good practice identified throughout the review, which are to be commended.

Conditions

With the exception of condition 2, the strategy for the other 5 conditions should be developed by the end of October 2013 and implemented in the 2014-15 Academic Year.

1. A structured workplace engagement, which is authentic to each programme and expressed as approved learning outcomes to be implemented across all programmes. Consideration to be given to the resources required to implement a robust placement strategy.
2. The Panel noted a number of inconsistencies, errors and omission in Volume 1 and Volume 2. These must be corrected in time for the timetabling of the 2013/14 academic year and should be audited by the Registrar.

For individual Departments

Mechanical and Electronic Engineering:

3. Include Manufacturing and Materials in the Mechatronics Level 7 and 8 programmes. Characteristics of basic processes such as milling and turning, and advanced manufacturing processes such as rapid prototyping, laser, EDM, and plasma should be included as well as properties of metals, ceramics, wood, polymer, and fluids before completion of awards.

Civil Engineering and Construction:

4. The Panel discussed the proposed Title of the Level 7 BSc in Quantity Surveying programme and the Panel does not accept the proposed change to BSc in Construction Management and Costing. The Panel suggest that the programme team could use the Title “BSc in Construction Cost Management”, for this Level 7 programme.
5. The major project in Year 3 of all Level 7 programmes to have a minimum credit weighting of 10 credits.
6. Where a module is examined by 100% Continuous Assessment, details of the number and type of assessment should be included in the module descriptor.

Recommendations

NOTE: The strategy in respect of all the recommendations should be developed by the end of October 2013. The recommendations that are being accepted should be implemented within two years.

For the Institute

1. Through the establishment of the Connaught University Alliance involving GMIT, IT Sligo and LYIT and linking with the Western Development Commission, IT Sligo needs to maximise its opportunities and identify its strategic priorities, niche competencies / offerings and timelines/targets for its participation in the regional northwest Technological University concept.
2. This Plan, developed in respect of the CUA, must provide greater clarity of direction for the staff in the School. It is critical that it be translated down to the Staff and Department heads to permit them to deliver on the School Recommendation No 2.
3. Provide more flexible models for staff to seek PhD awards based on publications or to undertake professional PhDs.
4. Revisit the new School structure and identity to ensure that there is greater integration and appropriate and equitable allocation of resources to Performing Arts, Fine Art and Creative Design activities
5. Ensure that there is an appropriate balance of teaching vs research
6. Improve structures and supports for staff wishing to pursue the diverse approaches to research activity and dissemination.

For the School

1. There is an onus on the School and each Department to be strategically relevant to the broader region, and the relevance of each programme should be clearly articulated in the context of both the operating environment and the marketplace. This process should be time-bound and delivered in line with the current strategic plan process.
2. The School needs to identify what are their strategic priorities and to have a Business and Operational Plan to provide the educational services that it is promoting, including greater refinement on its objectives and targets.
3. There are significant opportunities for resource efficiency such as greater sharing of modules across Programmes and Schools. The School should review its staffing resources and allocation and identify specific resource savings.
4. Take advantage of the new School structures to have greater interdepartmental co-operation on programmes
5. Consideration should be given to a common 1st engineering programme.

6. The number of separate programmes has grown considerably since the last Programmatic Review. This should be reviewed in light of HEA policies and also the overhead associated with separate modules.
7. There needs to be an agreed strategy relating to discontinuing/pausing a programme.
8. As was stated in the programmatic review of 2007, the School should develop strategies to provide more elective opportunities if appropriate such as making modules available from cognate programmes.
9. The ratio of contact hours per credit varied considerably across modules and this needs to be addressed in the context of the ECTS credit workload.
10. Enhance the interaction with industry through the establishment of Industry Liaison Group Advisory Boards, as appropriate for each department.
11. Address the space and resource allocation within the School specifically with providing more appropriate allocation to the creative practices, with particular reference to the integration of the Fine Art programme.
12. Give consideration to a strategic approach to the marketing of programmes in line with institute-wide initiatives
13. The School should ensure that semesterisation is implemented effectively across all programmes.
14. Any innovations that save resources should be appropriately rewarded.
15. To evolve best practice for the multidisciplinary projects to ensure these are conducted effectively to achieve the intended learning outcomes.
16. Review access to laboratories in the context of feedback from students who found it very difficult to gain non timetabled access.

Programme Specific Recommendations

Department of Civil Engineering and Construction

Recommendations

1. The Panel recommends that the Department of Civil Engineering and Construction establish an "Industrial Liaison Group", to build on their links with Industry in the context of school recommendation No. 10.
2. To improve programme delivery efficiency, the Panel strongly recommends that the programme boards for the Level 7 and Level 8 programmes in Civil Engineering review the second year modules to increase substantially the common modules.
3. To re-emphasize school recommendation No. 9, the Panel recommends that the allocation of contact hours across modules in all programmes should be consistent with the ECTS level and needs to be addressed in the context of the ECTS credit workload.
4. The Panel recommends that an inter-disciplinary project is created as a separate module for all Level 7 and Level 8 programmes in the Department.
5. The Panel recommends that work placement should be incorporated in all programmes and this should be actively pursued by the Programme Co-ordinators. This recommendation is made in the context of the School Condition No. 1 that a structured workplace engagement will be put in place and that the direct engagement with industry may be a placement process.

6. The Panel supports the Department objective of establishing further collaboration internally with the Mechanical, Electronic and Creative Practice programmes. The Panel commends the excellent start made by the Interior Architecture programme in this regard and supports their plans for further integration in later years.
7. The Panel commends the excellent work of the School/Department in the development of On-Line programmes. The Panel recommends that there is consistency across the School in the resource allocation for the delivery of On-Line modules.
8. The Panel recommends that the Programme Committees consider the inclusion of electives in the final year of all level 8 programmes and that these are selected from the School's existing suite of modules.
9. The Panel noted the high failure rate in year 3 of the Level 8 programme in Civil Engineering. The Panel recommends that the entry requirements for the Level 7 students onto the programme be reviewed with this in mind.
10. The Panel identified that there was a considerable variation in the weighting between continuous assessment and final examination. The Panel recommends that there should be greater standardisation in the approach taken to ensure that there will be consistency in the student effort and that the students will have clarity in the requirements.
11. The Panel recommends that a review of module syllabi should be undertaken to ensure reading lists are current.
12. The Panel recommends that the title of the module "Quantitative Studies" in year 4 of the Level 8 Quantity Surveying programme should change to reflect the mechanical and electrical syllabus content.
13. The Panel recommends that the topic "Cost Control" should be added to the syllabus content of the Level 8 Quantity Surveying programme.
14. The Panel recommends that the programme team for the BSc in Advanced Wood & Sustainable Building Technology should include a major project module in the Year 3 of the programme.
15. Research projects in Quantity Surveying , Construction Management and Construction Project Management need to be implemented.

Findings of the Panel for the Department of Mechanical and Electronic Engineering

Observations

1. The Department is tracking very well the requirements of industry and reacting promptly to these findings.
2. The Institute management team appears to be driving the Department toward Level 9 and increased research activity however paradoxically the market may also be driving them towards Level 6 provision in line with stakeholders such as IDA. A strategy needs to be developed to address this.
3. Lecturers need strategic clarity on where School priorities lie and how resources are allocated, how many hours are allocated for online delivery and for 1 ECTS for any module.
4. Academic team appear highly committed to the provision of online programmes and their support is to be commended.

Recommendations

1. In the context of school recommendation No. 10, the Panel recommends that the Department of Mechanical and Electronics Engineering establish an "Industry Advisory Board" to build on their links with Industry. Consistent with School condition No. 1 on workplace experience, the inclusion of work placement, more industrial visits, guest speakers from industry and preparation for a career in engineering should be incorporated in all programmes in the Department.
2. Review programme offerings and reduce the number of programmes offered.
3. In terms of resource efficiency there is potential for sharing of modules to achieve more commonality of module delivery at first year in particular in the areas of Mathematics, Physics and Materials. Across programmes, there is possibly an opportunity to achieve commonality with other departments on delivery of modules in Quality, Management, Finance for Engineers.
4. From an operational point of view, the planning of resources needs reviewing and rationalising to focus on increasing numbers and on a smaller number of programmes. The level of evening hours teaching required to support programmes needs consideration.
5. There is a need to maintain quality of delivery and retention which is going well now but could easily suffer if not managed correctly in terms of support for online programmes, registration, marketing, Moodle system and student care.
6. Consider delivering online modules during the day rather than exclusively in the evening .
7. Explore including Green Belt as an elective or embedded in Mechanical and Electronic programmes
8. Consider change of title on Level 9 Energy programme to incorporate a more focused view of the changing landscape in the sector.
9. Greater levels of central support are needed for marketing of programmes (e.g. online search engine optimisation rankings).
10. There are excellent levels of knowledge base around online delivery, in particular in Energy Management programmes, this could possibly be franchised or delivered to industry.
11. Academic staff currently take both the academic and administrative workload for online students. A separate student support/student care resource should be available in parallel to the academic staff.
12. Attention needs to be given to staff retention, in particular for the delivery of online programmes. Any negative perception or impact to online students may result in adverse comments being made via online (social) media which could cause reputational damage.
13. In relation to programmes delivered online, the School needs to consider flexible arrangements for the delivery of examinations (i.e. for overseas students, different time zones etc.).
14. Review the balance between practical versus theory for 3rd Year Mechanical.
15. Recommend the inclusion of field trips as part of the programme of learning for 3rd year Mechanical.
16. In general for the Mechanical and Mechatronics groups recommend that the maximum lab class size is not increased (maximum allocation is 16 NOT 21 as happened at the beginning of the year).

Findings of the Panel for the Department of Computing and Creative Practices

Observations

1. This large Department, which has only been recently created and which incorporates a broad discipline mix, is to be commended for the manner in it is adapting to the considerable change involved.
2. The staff in each of the discipline areas: Computing, Creative Design, Fine Art and Performing Arts, are clearly very committed and there is a strong suite of programmes in place.
3. The opportunities that stem from bringing these disciplines together were acknowledged by the staff but it is recognised that it is still very early in the process and that it will take some time and on-going inter-disciplinary engagement for these to be realised.
4. The Panel observed that the disciplinary mix brings challenges in ensuring that any healthy tensions between disciplines are focused constructively, that resources are allocated proportionate to needs and in forging a common identity for the Department and School.
5. The Department is to be commended on its strong engagement with industry and the community, in their various guises reflecting the breadth of disciplines. Of particular note is its success in innovation voucher projects, in national and international competitions and for the fact that work placement is now part of all programmes.
6. The Department is to be commended for its plans to deliver the HDip in Science in Computing online from September 2013.

Recommendations

1. The Panel confirms that the word Innovation should be removed from the titles of the Creative Design suite of programmes i.e. BA (Hons) in Creative Design, BA in Creative Design.
2. The BA in Fine Art should include topics on collaborative and participative practices and on public art.
3. The Department should continue to contribute to the Institute-wide discussion on whether particular levels of attendance should be required by students.
4. Synergies between the disciplines within the Department should be explored.
5. The Department should include in student documentation a roadmap to highlight the programmes on offer and the progression pathways a student can take during and after completing a particular programme. In particular, the routes through the module suite should be made more explicit with pre-requisite and co-requisite modules being clearly identified.
6. In conjunction with the relevant Institute agencies and personnel, clear and comprehensive plans should be in place for the marketing of all of the programmes as well as achievements and opportunities, such as innovation vouchers.
7. Whilst recognising the on-going scholarship being undertaken by staff in order to remain well informed of developments in rapidly changing areas, there is considerable potential for the further development of research in the Department, including the documenting of research work that is occurring currently. To further this research agenda, the Department should:
 - a. identify its key strategic research themes and priorities;
 - b. Ensure that equitable regard is given to the different types of disciplinary research within the Department;

- c. Prepare plans for the growth of its research in the context of the Institute's objectives and overall strategy.
8. The Department should endeavour to increase the proportion of staff with PhD qualifications. It should contribute fully to any School and Institute strategies for the provision of mechanisms by which this could be achieved and identify any barriers impeding this development.
9. The Department should proactively plan for its future role in regional collaborations in the context of the Connacht-Ulster Alliance.
10. In the context of the experience and expertise available in the broader School, the Department should endeavour to further expand its offerings online. The Department needs to review the capacity (including the technical capacity) required for enhanced delivery of on-line courses in this area.
11. The Department should review the allocations of space, technical resources and material resources for the disciplines to ensure an allocation for each proportionate to its needs.
12. The Department should establish an advisory Strategic Planning Group, representative of all the disciplines within the Department, to, inter alia, engage in environmental scanning of best practice locally, nationally and internationally and to assist in planning its future development and direction.

Part 11 Conclusion

The School of Engineering and Design carried out a self-evaluation during the academic year 2012/13. This culminated in a School Planning and Programme Revalidation submission that was assessed by a Panel of external experts in April 2013, in accordance with the institute's Quality Assurance procedures.

The evaluation process included a review of the extensive documentation submitted by the School and meetings with the President, the School Management, all of the Academic staff and external stakeholders took place. There was a very positive meeting with students in which they indicated their satisfaction with the Institute, the School and the staff.

Following the review, the Panel recommended the revalidation of all existing programmes that were submitted by the School. The Panel also acknowledged the initial work on the development of a School 5 year plan.

The Panel specified 6 Conditions, 6 Recommendations for the Institute and 16 School-wide recommendations. There were also a number of programme specific recommendations.

The outcome of this review will be submitted to the Academic Council for adoption.

Professor Padraic O Donoghue

Chairperson

Dr Brendan McCormack

Registrar

Date: _____

Appendix I Agenda (confirmed at the Panel meeting on 17th April, 2013)

Wed 17th April

Date/Time	Item	Room
17:00-19:00	Private meeting of the Panel: Discussion of documentation and identification of points for special consideration. Confirmation of the agenda. Process overview from School Management.	Tucana suite , Clarion Hotel
20:00	Panel dinner	Clarion Hotel

Thurs 18th April

Date/Time	Item	Room
08:30-09:15	Private meeting of Panel	Education Centre, Innovation Centre, IT Sligo
09:15-09:30	Meeting with President & Head of School	Education Centre, IT Sligo
09:30-11:00	Meeting with Head of School, Heads of Departments on School Plan <ul style="list-style-type: none"> - Approach taken to planning - School Academic Plan & target market - Initiatives for student throughput, retention; feedback processes - Pedagogical and delivery strategies - Research growth Plans - Student support services - School/Department Structure and management & administrative structures - Staff compliment (academic, technical & administrative), deployment and development - Physical facilities 	Education Centre, IT Sligo
11:00-11:15	Coffee	Education Centre, IT Sligo
11:15-13:00	Continuity of meeting with Head of School, Heads of Departments, and Programme Chairs on School Plan (as above)	Education Centre, IT Sligo
13:00-14:00	Lunch	Education Centre, IT Sligo
14:00-16:00	Programme Revalidation: (all staff) Breakout of Panel with three Departments, Heads of Departments, Programme Chairs, all lecturing staff: <ul style="list-style-type: none"> - Feedback to and from students, employers and external examiners - Graduate employability - Links with employers - Programme design, modifications and titles of awards - Learning outcomes - Delivery methodologies 	Room E1006 Department of Civil Engineering and Construction(Note taker – Amanda Harrison) Room E1008- Dept of Mechanical and Electronic Engineering (Note taker - Deirdre Collery) Room M1003- Department of Computing and Creative Practices (Note taker – Aoife

	- Departmental Research	Currid)
16.00- 17.00	Private meeting of Panel/Coffee	E1008
17.00- 18.00	Tour of facilities	School of Engineering & Design
20:00	Panel dinner	Clarion Hotel

Fri 19th April:

Date/Time	Item	Room
08.30- 09.00	Private meeting of Panel	E1008
09:00-10:45	Programme Revalidation continued: Breakout of Panel with three Departments, Heads of Departments, Programme Chairs, all lecturing staff: <ul style="list-style-type: none"> - Feedback to and from students, employers and external examiners - Graduate employability - Links with employers - Programme design, modifications and titles of awards - Learning outcomes - Delivery methodologies - Departmental Research 	As above
10:45-11:00	Coffee	On site
11:00-12:00	Private meeting of Panel: break-out group work with note taker to have draft programme revalidation report to bring to the full Panel	As above
12:00-13:00	Meet with Student Representatives and with external Stakeholders	Room E1006 Meeting with external Stakeholders Room E1008 – Meeting with Student Representatives
13.00- 14.00	Lunch	Institute Board Room, IT Sligo
14-00-14:30	Catch-up meeting with Head of School, Heads of Departments, Programme Chairs (if required)	Institute Board Room, IT Sligo
14-30-15:30	Private meeting of Panel to agree Findings including top line conditions and recommendations	Institute Board Room, IT Sligo
15:30	Feedback to School	Institute Board Room, IT Sligo
16:00	Finish	

Appendix II: Membership of Review Panel

Group 1: Civil, Construction & Architecture

Title	Name	Surname	Role	Institution/Company
Professor	Padraic	O Donoghue	Professor of Civil Engineering	NUIG
Ms	Maria	Kyne	Head of School of the Built Environment	LIT
Mr.	Joe	McLoughlin	Construction Director, North and West of Ireland	John Sisk and Sons Ltd
Mr	Denis	Coveney	Chartered Quantity Surveyor	Cork IT
Mr	James	Griffiths	Architect	Vincent Hannon and Associates
Dr.	Roisin	Murphy	Lecturer in the School of Real Estate and Construction Economics	DIT
Mr	Michael	Blaney	Chartered Quantity Surveyor, Project Manager	BP Property Consulting

Group 2: Mechanical, Electronic, Mechatronics, Quality

Title	Name	Surname	Role	Institution/Company
Ms.	Fiona	Cranley	Head of Department of Mechanical Engineering	IT Tallaght
Mr.	Dermot	Brabazon	Lecturer in Mechanical Engineering	DCU
Mr.	Michael	Walsh	Research and Development Engineer	Boston Scientific
Mr.	Damien	Owens	Registrar, Engineers Ireland	Engineers Ireland
Mr	Kevin	Geoghegan	Graduate	Roscommon Nation Roads Design
Mr.	Mike	Devane	Chair, Research & Development group, American Chamber	Quilly Consulting

Group 3: Computing, Creative Design, Performing Arts, Fine Art

Title	Name	Surname	Role	Institution/Company
Dr.	Gerard (Bob)	McKiernan	Head of School of Informatics and Creative Arts	Dundalk IT
Mr.	Ciaran	O Connor	Owner/MD	Trojan IT Solutions
Dr.	Eamonn	Jordan	Head of Subject, Drama Studies, School of English, Language and Film, University College Dublin	UCD
Dr.	Ingrid	Hunt	ULearning Project Co-Ordinator & Research Fellow at the Enterprise Research Centre at University of Limerick	Enterprise Research Centre, University of Limerick
Mr	Caoimhin	Corrigan	Cultural Broker with ILEX	ILEX Urban Regeneration Company
Mr	Leo	Scarff	Product Design	Leo Scarff Design
Mr	Kevin	Curran	Reader Computer Science	University of Ulster

Appendix III: List of documentation circulated to the Panel

The following documentation relevant to the Review was circulated to the Panel in advance of the meeting.

- Chapter 5 of the QA Manual which explains what the process of the School Planning and Programme revalidation.
- School Planning and Programme Revalidation, Terms of Reference.
- A proposed agenda and list of Panel members (The agenda was finalised when the Panel meets on Wednesday 17th April at 5 pm.)
- A hard copy of the School Self Evaluation document Volume 1 (School Planning)
- Hard copies of the proposed changes to programmes in the 3 departments, Volume 2 providing a summary of, and justification for the proposed changes to programmes)
- A USB key with soft copies of all documentation including further details pertaining to programmes and modules, by department
- Map of Sligo
- Panel Visit Claim form

Appendix IV: Private meetings of the Panel

18th April 2013: Points raised for discussion by the Panel at a private meeting

1. Response to previous Programmatic Review recommendations
2. semesterisation - how has the School made the change and how will this be implemented.
3. More information on graduates and employability
4. International policy and plans to roll this out
5. Ensure there are graduates at the student reps meeting
6. Panel asked for a demonstration of online learning

18th April 2013: Points raised for discussion by the Panel at a private morning meeting

- Semesterisation and contact hours
- Work placement, as recommended in the last PR
- People with trades background how are these facilitated
- Staff numbers, section 5.1 - increase in staff (Section 5.1) versus reducing student numbers
- How to integrate the breadth of disciplines/School Structure
- Student recruitment and retention and sustaining low number courses
- Why has retention improved
- How did they go about their planning - how to address the down turn
- QA of Distance learning
- Balance between distance and face to face teaching
- Why is there no online course in Computing
- What is the strategy for getting more staff involved in research
- Links to industry for research
- Implication of the CUA and the HE strategy
- Where is the oversight of the competitiveness of ITSligo wrt to other HEIs.
- What are the plans for professional accreditation

18th and 19th April 2013: Points raised for discussion by the Panel at a private evening and morning meeting

General comments:

- School to provide greater transparency if there is a resource issue regarding staff allocation of teaching hours
- The ratio of learning hours per credit varied considerably across programmes (even within the same department)

Feedback from Department of Civil and Construction

- Overview provided by the HOD
- Indications that all programmes will be revalidated.
- Interdisciplinary module might be taken out separately
- Internationalisation
- Increase the work-based student placement
- Further collaboration with other departments in the School
- Level 7 project – increase to 10 credits
- Establish a consistent assessment strategy re CA/final exam split
- Introduce more commonality between Civil and Environmental engineering modules
- Dissertation
- Issues on ethics
- High failure rate in year 3 of L8 to be reviewed
- Need to yet consider the Level 6 HC in Civil Engineering.

Feedback from Department of Mechanical and Electronic

- No major issues and indications that all programmes will be revalidated.
- Presentation from HOD: Panel noted the 500 online and 304 in-class, with 38 staff.
- Seems like a generous staff-student ratio and that hours could be saved to be allocated towards research and or new programme development
- Staff confirmed that they are strong on online delivery and that they want to grow research
- Staff noted the lack of support for Moodle and online delivery
- Should be greater commonality between disciplines in the Department
- Are online development strategy and research strategy compatible
- Appears that there is no clear plan for the Department in balancing the resource allocation
- There will be a recommendation on Work placement
- Do not intend to go for accreditation for the L8 in Mechanical

Feedback from Department of Computing and Creative Design

- Noted that the session went over time as there were three distinct disciplines to consider.
- The meeting started with a general Departmental-wide discussion. The healthy tension between the groups was notable. There were issues regarding space, the standing of practice-based (creative) research, and the title of the School. The staff did acknowledge the opportunities, but commented that these were not yet explored or developed.
- The Staff considered that they could do more with greater space, particularly in the Creative Arts.

- The Panel considered that there was considerable potential for research but that the reaction of staff was that they do not have the time to do this.
- The importance of research is identified by the Panel, in relation to attaining TU status – and the Institute needs to consider how this will be achieved.
- The Department needs to identify its research opportunities and prepare its plans for presentation to the Executive Committee.
- Other Department-wide issues include teaching and learning, research, online delivery, the process of review, and the underselling of some programmes.
- There was no identified strategic research group or theme for the department, which has resulted in a lack of awareness of the what is going on elsewhere, nationally and internationally.

Performing Arts :

- Presented strongly, as a vibrant team, with integrated learning and a good sense of their students through to their employment. There is a structured approach to external engagement.
- There was a misunderstanding on the attendance requirement on programmes, which was registered as 80% for some modules and N/A for other modules.
- There were other errors related to pass rates and weighted student numbers
- Other typos

Fine Art:

- The location of the teaching facilities may give rise to a sense of disconnection across the School
- Student recruitment strategies would need to be reviewed, as there is a high intake of mature students.
- The reputation of the course needs to be addressed in relation to where the graduates see their career direction.
- The staff did not seem to consider engagement with external peer professional was necessary.
- Two-thirds of the staff are part time which appears to have resulted in a low level of cohesion within the staff delivering the programme.
- There is no research focus
- There is a noticeable variation of 1st year student intake number from year to year.

Creative Design:

- Similar issues arose as for other disciplines
- The Panel asked what was the skills set being provided and how does this related to what employers were looking for. There was a lack of data on this in the documentation provided.
- There needs to be a clear and comprehensive plan for a greater level of marketing of each of the programme.
- The Programme itself is strong.
- It was noted that they are seeking a change in programme title, which was not properly explained in the documentation – i.e. they want to change the title Creative Design & Innovation to Creative Design at all levels.

The Panel did a quick review of the meeting earlier in the day. Issues to be considered:

- Clear strategy for research including freeing up staff resources
- Be more specific on goals for the School.
- The two tasks of research and online delivery may be incompatible and staff need to engage in one or the other.
- Investigate PhDs through publications
- The management of how are trends being monitored in programme areas and how this is being communicated up through the School needs to be considered.
- There is a weakness in how the School considers and builds relationships with employers. This is reflected in the low number of programmes with placement. This needs to be driven strongly particularly in the engineering and construction programmes.

19th April 2013: Points raised at the final meeting of the Panel

This meeting discussed the proposed draft commendations, conditions and recommendations of the Panel that were subsequently presented orally to the School management team.

Appendix V Presentation made by the President to the Panel

Appendix VI Presentation made by the Head of School to the Panel

Appendix VII Staff members who met with the Panel

Staff in Attendance for Department of Civil and Construction

Thursday 18th April 2013

Staff Member

Brady, Cliona
Carter, Patrick
Carter, Patrick
Casserly, John
Casserly, Mel
Casserly, Mel
Creedon, Les
Donohoe, Bernadette
Donohoe, Bernadette
Feeney, Owen
Feeney, Owen
Gallagher, Kieran
Gallagher, Michael
Hamilton, Paul
Harrison, Amanda (Note taker)
Healy, Ben
Healy, Ben
Loftus, David
Massie, Anthony
Mc Cann, Brian P
Mc Donough, James
Mc Donough, James
Mc Gagh, Sean
Mc Gagh, Sean
Mc Ginty, Gary
Mc Loughlin, Leigh
Mc Loughlin, Leigh
Mc Sharry, Trevor
Mc Sharry, Trevor
Naughton, Cathal P
Naughton, Cathal P
Naughton, Patrick
Naughton, Patrick
O'Brien, Maeliosa
O'Brien, Maeliosa
O'Doherty, Emmet
O'Flaherty, Tomas
O'Flaherty, Tomas
O'Kelly Lynch, William
O'Reilly, John J
Quigley, Kathryn
Quigley, Kathryn
Roulston, Michael
Roulston, Michael
Scanlon, Peter
Sheridan, Michael
Tansey, Paul

Tansey, Paul
Timoney, David
Watson, Rowan
Watson, Rowan

Department of Mechanical and Electronic Engineering

Attendance

Staff Member

Name

Coll, Brian
Colleary, Niall
Collery Deirdre (note taker)
Collins, Kevin
Conlan, Sean
Corcoran, Grace
Craig, Ian
Craig, Robert
Dalton, Sean
Donohoe, Molua
Donovan, Fiona
Donovan, John
Doyle, David
Duddy, Annmarie
Gillan, Simeon
Grant, Noeleen
Henry, Fergal
Hession, John
Kelly, David P
Kennedy, Robert
Lawlor, Conor
Lyons, Donal
Martin, Andrea
McCann, Mairead
Moffatt, Michael
Mullery, Sean
O Callaghan, Tom
Price, Eamonn
Reddin, Eamonn
Reid, Stephen
Scanlon, Peter
Sheridan, Declan
Tonry, Steve
Tormey David
Una Parsons
Winters Liam

Department of Computing and Creative Practice

Attendance

Staff member

Caffrey, Elizabeth
Colleary, Niall
Conway, Frank
Conway, Joanne
Currid, Aoife (note taker)
Davey, Colm
Durcan, Adrian
Flynn, Paul
Gannon, Neil
Ganey, Ann
Harte, Padraig
Hughes, Ronnie
Hume, Therese
Keane, Fergal
Kelleher, John
Kinsella, Elizabeth
Kinsella, Vivion
Lang, Drew
Leonard, Susan
L' Estrange, Una
Mannion, Una
McManus, Keith
McManus, Louis
McManus, Karen
McWeeney, Paul
Mehegan, Angela
Mitchell, Fiona
O'Brien, Diane
O'Regan, Francis
Pallai, Agnes
Pepper, Mark
Pilkington, Alison
Powell, Paul
Roberts, David
Timmons, Diarmuid
Trench, Rhona
Vasiloaica, Dana
Walsh, Nevil
Walsh, Ruth
Ward, Emer

Appendix VIII: External Stakeholders who met with the Panel

Name	Title	Company
Civil Engineering & Construction		
Seamus Lee	Civil Engineer	Vincent Hannon Architects (VHA)
Colin Bell	Architect	
Jackie Corcoran	Quantity Surveyor	J.J. Rhatigan & Company
Mechanical and Electronic Engineering		
Catherine Collins		First Polymer, Athlone
Michael Conlon		Masonite Ltd
Computing and Creative Practices		
Gerry McManus	Managing Director	Compupac, Sligo
Adrian Gormley	Senior Designer	Pneumatic Displays Ltd, Castlebar, Co. Mayo
Alice Lyons	Curator of the Dock	Carrick-on-Shannon, Co. Leitrim

Appendix IX Students who met with the Panel

First Name	Surname	Programme	Year
Stephen	Henry	B.Sc. Advanced Wood and Sustainable Building - Level 7	1
Francis	Brew	B.Sc. Advanced Wood and Sustainable Building - Level 7	3 ^r
Gavin	McNamara	B.Eng. Civil Engineering – Level 7	1
Brian	McManus	B.Eng. Civil Engineering – Level 7	2
Dermot	Holohan	B.Eng. Civil Engineering – Level 7	3
Eoghan	Kenny	B.Eng. Civil Engineering – Level 7	3
Liam	Murtagh	B.Eng. Civil Engineering – Level 8	3
Niall	Costello	B.Eng. Civil Engineering – Level 8	4
Roisin	McManus	B.Eng. Environmental Engineering – Level 7	2
Martin	Feeney	B.Sc Construction Project Management - Level 8	4
Niamh	McCarthy	B. A. Interior Architecture	1
Seanagh	Glynnmartin	B. A. Interior Architecture	2
Aoife	Smyth	B. A. Interior Architecture	3
Leanne	O'Donnell	B. A. Interior Architecture	4
James	Huxley	B. A. Interior Architecture	4
Clair	Hughes	B.A. Interior Design	2
Glenn	Gordon	Civil Engineering	PG.
Sean	Mitchell	B.Eng. Mechanical	1
Adam	Mullen	B.Eng. Mechanical	1
Aoife	Sheridan	B.Eng. Mechanical	1
David	Healy	B.Eng. Mechanical	3
Gabor	Stefcsik	B. Eng Mechatronics	1
Marcin	Targosinski	B. Eng Mechatronics	1
Colin	Tempany	B. Eng Mechatronics	1
Konrad	Mulrennan	B. Eng Mechatronics	4
Nicola	Joyce	B. Eng. Electronic Engineering	1
Aiden	Sweeney	B. Eng. Electronic Engineering	1
Alan	Campbell	B. Eng. Electronic Engineering	2
Michael	Cafferty	Mechanical Engineering	PG-
Padraig	Varley	Mechanical Engineering	PG
Reuben	Cummins	B.Sc. Games Development	1
Ethan	Henry	B.Sc. Games Development	1
Oisin	Foley	B.Sc. Software Development	1
Conor	Higgins	B.Sc. Software Development	1
Enda	Phelan	B.Sc. Software Development	1
Gavin	Conlon	B.Sc. Software Development	2
John	McGovern	B.Sc. Software Development	2
Enda	McCormack	B.Sc. Software Development	3

John	Keane	B.Sc. Software Development	3
Fiona	O'Haire	B.Sc. Computing Data Management	3
Ryan	Loftus	B.Sc. Games Development	1
Ryan	Lynch	B.Sc. Games Development	1
Frederick	Dolan	B.Sc. Games Development	2
Mike	Gilmartin	B.Sc. Games Development	2
Marion	O'Connor	B.Sc. Computing Systems & Networking	4
Gary	Gaffney	B.Sc. Computing Systems & Networking	4
Joe	Wilson	B.Sc. Computing Systems & Networking	3
Thomas	Wallace	B.Sc. WEB Development	2
Barbara	Welby	B.Sc. WEB Development	1
Chantelle	Williams	B.Sc. WEB Development	1
Tiernan	Gilmartin	B.Sc. WEB Development	2
Linda	Cunningham	B.A. Fine Art	2
Sean	Wynne	B.A. Fine Art	2
Lisa	Carrall	B.A. Creative Design	1
Aaron	Ward	B.A. Creative Design	1
Orla	Gorman	B.A. Creative Design	1
Kevin	Garvin	B.A. Creative Design	3
Aine	Cryan	B.A. Performing Arts	2
Sarah	McGerty	B.A. Performing Arts	3
Joe	Dee	H Dip Computing	Mature
Emma	McCaffrey	BA Computer Systems/Networking	Graduate
Matthew	Tucker	BA Fine Art	4
Marian	Conboy	BA Fine Art	3
Damien	Fee	BA Creative Design	4
Alison	Murtagh	BA Performing Arts	3
Peter	Singar	BA Performing Arts	4
Kathleen	Rayner	BA Performing Arts	2
Darren	McGcauavhan	BA Performing Arts	4
Catherine	Jackson	BA Performing Arts	4
Bence	Adam	BA Hons Performing Arts	1
Frank	OMahoney	BA Hons Performing Arts	1

Appendix x Academic Programmes recommended to the Academic Council by the Panel for validation

Department of Civil Engineering and Construction

1. Higher Certificate in Civil Engineering
2. Bachelor of Engineering in Civil Engineering – Full-Time
3. Bachelor of Engineering in Civil Engineering – Part-Time
4. Bachelor of Engineering (Honours) in Civil Engineering, (Ab-Initio)
5. Bachelor of Engineering (Honours) in Civil Engineering, (Add-On)
6. Bachelor of Engineering (Honours) in Civil Engineering – Part-Time
7. Bachelor of Engineering in Environmental Engineering – Full-Time
8. Bachelor of Engineering in Environmental Engineering – Part-Time
9. Bachelor of Science (Honours) in Construction Project Management – Full-Time
10. Bachelor of Science (Honours) in Construction Project Management – Part-Time
11. Bachelor of Science in Construction Management – Part-Time
12. Bachelor of Science in Quantity Surveying – Full-Time
13. Bachelor of Science (Honours) in Quantity Surveying – Full-Time
14. Bachelor of Science (Honours) in Quantity Surveying – Part-Time
15. Bachelor of Arts in Interior Design – Full-Time
16. Bachelor of Arts (Honours) in Interior Architecture RIBA Part I – Full-Time
17. Masters in Interior Architecture, Level 9 – Full-Time
18. Bachelor of Science in Advanced Wood and Sustainable Building Technology – Full-Time

Department of Mechanical and Electronic Engineering

1. Higher Certificate in Engineering in Electrical Energy Systems - Full-time
2. Higher Certificate in Engineering in Electrical Installation and Maintenance - Full-time
3. Bachelor of Engineering in Mechanical Engineering - Full-Time
4. Bachelor of Engineering in Mechanical Engineering (Add-on) - Full-Time
5. Bachelor of Engineering (Honours) Mechanical Engineering – Full-Time
6. Bachelor of Engineering (Honours) Mechanical Engineering (Add-on) – Full-Time
7. Bachelor of Engineering in Electronic Engineering – Full-Time
8. Bachelor of Engineering in Electronic Engineering – Part-Time
9. Bachelor of Engineering (Honours) in Electronic Engineering – Part-Time
10. Cert in Automation, Instrumentation & Electronics (Part-Time level 6 – Qualifier)
11. Bachelor of Engineering in Mechatronics – Full-Time
12. Bachelor of Engineering in Mechatronics - Part-Time
13. Bachelor of Engineering (Honours) Mechatronics – Full-Time
14. Bachelor of Engineering (Honours) Mechatronics – Part-Time
15. Bachelor of Science in Quality Engineering – Part-Time
16. Bachelor of Science in Manufacturing Management – Part-Time
17. Certificate in Engineering in Six Sigma Green Belt – Part-Time
18. Bachelor of Science (Honours) Quality Management & Technology – Part-Time
19. Master of Science in Quality – Part-Time
20. Post-Grad Diploma in Quality – Full-Time (Level 9)
21. Master of Science in Energy Management – Full-Time
22. Master of Science in Energy Management – Part-Time
23. Post-Grad Diploma in Energy Management – Full-Time
24. Post-Grad Diploma in Energy Management – Part-Time
25. Bachelor of Engineering in Polymer Processing – Part-Time

Department of Computing and Creative Practices

1. Higher Certificate in Computing
2. Higher Diploma in Science in Computing
3. Bachelor of Science in Software Development
4. Bachelor of Science in Systems and Networking
5. Bachelor of Science in Games Development
6. Bachelor of Science in Web Development & Creative Media
7. Bachelor of Science in Computing
8. Bachelor of Science in Computing Software Development (Honours)
9. Bachelor of Science in Computing Systems & Networking (Honours)
10. Bachelor of Science (Honours) in Computing
11. Bachelor of Arts in Fine Art
12. Bachelor of Arts in Fine Art (Honours) – Add-On
13. Bachelor of Arts in Creative Design
14. Bachelor of Arts in Creative Design (Honours) Ab Initio
15. Bachelor of Arts in Creative Design (Honours) Add On
16. Bachelor of Arts in Performing Arts (Honours) Ab Initio