Institute of Technology Sligo

Faculty of Science

Programme revalidation

Report

Thursday 9th and Friday 10th May 2019

Contents of Report

Part 1 Executive Summary

The Faculty of Science, Institute of Technology Sligo undertook a review of its programmes during the academic year 2018-2019. A self-evaluation report was produced. An external peer-review panel was established by the VP Academic Affairs and Registrar. This panel met with the staff on May 9th & 10th. This report presents the findings of the panel.

Part 2 Introduction and Terms of Reference

This report outlines the proceedings of the programmatic review in the Faculty of Engineering & Designs and the findings of the external panel of assessors Thursday and Friday 9th & 10th of May 2019 respectively.

In accordance with the Quality Assurance Procedures of the Institute a detailed evaluation and analysis of the content of modules and programmes must be carried out at least every 5 years. This is to ensure that the Faculty updates its programmes and that they remain relevant to students and employers. It is also an opportunity to make the necessary changes to the programme structures and content to keep them current. 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 Faculty and the proposed changes to the various programmes (with supporting justification).

The Panel examined how the Faculty and each Department have achieved the objectives of the programme revalidation process.

These are to:
    a. Propose improvements to programmes based on a formal feedback and evaluation process
    b. Incorporate feedback from staff, student and employers into the revised programmes
    c. Ensure that programmes remain relevant to learners needs, including academic and labour market needs
    d. Ensure that learning modes are compatible with academic standards, coupled with the life style of learners
    e. Achieve enhanced integration between all aspects of learning, teaching and research incorporating any new pedagogical thinking, where appropriate
    f. To achieve revalidation of all programmes, incorporating the agreed changes (for up to a maximum of 5 years)

The Panel also considered the following:
    a. How each Department has addressed and dealt with issues and questions raised in the last programmatic review.
    b. The relationship of revalidation to the Strategic Plan of the Faculty and the Institute
    c. The contribution of active research to learning
    d. Proposed changes to programmes submitted for revalidation by the Departments

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   Private meetings of the Panel of Assessors

The panel held a private meeting on the evening of Wednesday 8th May.

Part 4   Meeting with the Institute VP President/ Head of Faculty

The Chair welcomed the President and the Head of Faculty.

The President gave an overview presentation on The Strategic Plan, HEA Compact and the TU.

Achievements included

- Institutional Review
- Recruiting Equality diversity and inclusion manager
- EI and IDA relationship
- 13.7m Capital developments
- EI Funding
- HEA Innovation awards

He outlined the Institutes Three Research Centres

- Ceris
- PEM
- CRISP

He described the Online 3,000 students with a 20% yoy growth and IT Sligo were the 1st IOT to introduce the New Apprenticeships.

Q What will be the changes in Organisation Structure due to growth?

A Following review we have created 2.5 new depts. – Including one in Science. We have 2 new VP posts and have new Instructional designers and student advisors.

In Science, we have new a department of health and nutrition but Life Science numbers still high.

We have recruited a new marketing Manager to lead on CAO and Online Marketing

Q How has the growth in online impact on staff numbers.

A There is an allocation geared to the number of student being taught. Good model going forward. There is also agreement around resourcing at Executive level.

Q How does online teaching affect the relationship with student on campus?

A Lecturers are involved in both. They are also working with Industry, involved in Nibert and other relationships.

The two Students groups are different – FT and Online. FT are generally 18 and come through CAO etc., Online are average 35, married and sponsored by company.

Online model is face to face as well with workshops, labs, tutorials with students coming together in convenient location.

Q Is the development of new online programmes time consuming.

A IT Sligo uses a low cost model of synchronous and asynchronous delivery. There is discussions with unions around a proposal for allocation for development and delivery.

Q Is there flexibility for staff around evening and weekend delivery.

R Lecturers can do lectures from home and some lecturers like the flexibility this gives them.

Q Are lectures live

R Yes but they are also recorded for student who are not available at that time. They can view them later.

Q What is the Institutes Retention Levels?

R Comparatively high and it has improved. They are benchmarked against other colleges and nationally. We have brought in peer mentoring – Sessions with lunches etc. This has run for 5 years and was a science led initiative initially. In the seminars, students get to know staff and how to manage workload.

Q Is the 75% mandatory attendance positive or negative. It was also noted that the percentage varied across programmes.

R Probably negative but it sets bar for what is expected of students.

The President left.

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

Head of Faculty Introduce the three Heads and then gave presentation on Vol 1A.

Key points included

- Focused on Fulltime and Online
- FT - Level 8 growing, L 7 decline.
- Largest Number of L 10 – 51 – Growing rapidly
- 64% Female students – Has grown
- 82% retention overall years
- International – Pan European project. Mid Sweden this year – 10 students going
- Increased number of graduates (not including Minor or SPA).
- Stretched for resources and space for postgrads
- Research Impact – H Index – 19 Benchmarked came 2nd out of 6
- Survey –
    - Quality of Course – Higher percentage disagree this time.
    - Student Feedback – Time, Spread
    - Industry Survey – Support – Very positive –

End of Presentation

Q How does the faculty promote staff development and CPD. What type of courses and as things change rapidly how do you make sure staff are up to date?

A There is an annual call for study major awards and currently 6 staff are undertaking PhD. Majority of application is funded. Majority of staff have PhD. All other applications are normally funded. Low numbers with a teaching qualification but there is a new PG Cert in Education starting in IT Sligo.

There is cooperation with industry and National Institute for Bioprocessing Research & Training (NIBRT) and this is two way. The QP programme involves staff being trained and continuous updating. This is not formal but done in an appropriate way for CPD.

Q Is there HIQA Compliance Information days?

A Yes and have day workshop with HIQA. There is a €50,000 staff development budget.

Diversity Training offered by CELT and there is also other technical training such as for spills etc.

Q What Management Development is available.

A There is the Advance HE programme and follow up. PMDS is done with manager and identification of needs. Next level down also need to be identified and trained.

Q Is there a path for technical staff to transition to academic

A Some science staff are undertaking online programmes to do this.

Q With staffing how do you make sure you are properly resourced. How do you do succession planning and how do you ensure you have cover if someone leaves or goes off. It was noted that one staff member appeared on quite a number of modules.

A Two new staff are being recruited and then being trained up. In online we are using staff already in industry and have only half contract (and only want half contract).

Being the module author does not mean that person is delivering.

In succession planning in key areas people are being identified to be able to deliver these

Q In the survey there was a student preference for one lecturer per module

A Format in PBL is that there are a number of staff involved etc. but normally in five credit modules normally 1 lecturer would deliver.

Q In TU Dublin there normally try to have 2 lecturers involved in module.

A Some programmes have 15 credit module and had more than 1 lecturer. This gave breadth rather than separate modules. Now moved back to five credit.

Q Award Profile – Awards of certain courses skewed. Pharma Level 8 Page 16/ 18 & 112 of Vol 1B – Spread of results – Are you concerned about this and how does this benchmark with other IOT?

A Hard to get info from our system on this. In that programme it was not a particular issue.

Q Would expect bell curve- Seems skewed and is extreme in some cases e.g. 85% pass. What are reasons and are you concerned by variations?

A Not aware of concern but will come back to with Staff in next session.

Q Any impact on employability of graduates

A No companies are happy with graduates.

Q Retention – Peer Mentoring – Has it just been implemented?

A Started 2012 – 1 Hour session – Went to lunch break – Free Lunch – Cost effective in retaining students. Wide range of involvement. Been very successful – 1st Semester and 2nd semester

Q Is there Learning Analytics for tracking students

A This is coming as we are piloting Seats. Can be empowering for students. Peer mentoring feeds back to programme team.

Q Attendance at Peer Mentoring

R High but not 100%. Interaction between 3rd year and 1st year students and its all about relationships.

Q Research Growth – How do you select areas?

R The Executive have funded three Strategic Research Centres. Science contributes 85% to all centres. CERIS doing a submission for funding. PG Student involved in UG projects. CERIS link from PIs down to Undergraduate. New Research masters in Biomed Science. New call immanent for Research Centre. One issue is we bring in staff and make teach high hours. We need Research Centre to buy out hours and at the moment this is equivalent to one person.

Q How are you dealing with this to grow.

A Time is problem with the need to free staff to undertake research. More freedom this year as they can get allocations. The Executive agreed a set of research allocations.

Q How do you implement this?

A This can be done retrospectively. Some staff do online, teach at night, and do research daytime. 51 PG equates to 100 hours per week.

Q New structured PHD – Good building blocks-

A Developing this. However, how does research work over the summer? Research contract needed for the sector.

Part 6   Departmental Meetings

Department of Environmental Science

Morning session Environmental Science 9/5/19.

Panel introduced themselves and their expertise. The programme leaders introduced themselves and also their interest.

This session would be about the changes in the plan and how are you going to drill these through.

Common Matrix: explain the approach to common modules. How do decide what is common and what is not. There are usually 3 modules common, are these the "good Module"? Learning to Learn is not common. Is this operational or something else?

Resources are the main reason, different years have different class sizes and also historically we have retained the old smaller modules. Small practical groups and in a lot of cases we have practical groups that can have only 16. This we find is very good as it gives class identity. Is there an identity code? No. for example: There is a lot of commonality in the new programme in Environmental Science with Ecology.

Biology is an example of a module that cannot be common, there is a part of this module with Health and Safety that is Enquiry Based Learning based, and this is operational to this group and is a practical area for this group but is not done with the Archaeologist.

We have Level 6 in Higher Cert, Level 6 new programme in Agri Science, (not yet validated). We have L6, L7, L8, on line programmes and full time programmes. On-line has grown a lot.

Do level 6 students tend to continue study? Yes. The Higher Cert in particular may jump ship, but we have identifies this. This maybe because they don't feel affiliated to any programme in year 2 as they are bunched in with other programmes. Class identity is very important

Last Programmatic Review did you have Archaeology?

Yes but we only introduced L6 in 2014.

Did you have Agri food? No. This was introduced in 2016. It was conceived into Human Nutrition in life Science and then move into Environmental Science, because ownership of the programme has changed this brings its own change. But you are not doing it this year?

Yes there appears to be a problem recruiting to this course, but we have a new marketing crew and we are putting a lot of resources in the market research of this course.

Do you think there is a market for this course or are you just not hitting the market?

The problem is we don't have a Green Cert. Students when they look at this, they see all the food stuff and they don't want this they only want the Green Cert.

We have Level 6 launching in September. It is very relevant; Validity of this may be more relevant to the student who will inherit farms etc. We have a link with Board Faille and also the biggest input will be how the country is going in 2020. There is huge potential for this but we don't have the balance right yet. A suggestion was to change the name to maybe to "Sustainable Food Development "

We also maybe hit by location. We also need the Green Cert and not any longer than 2 years people lose interest. The big thing is that people understanding that there are jobs out there. This is the basic line between parents and students, job potential. Also this is the 1st time we have students out there, we must build it up quickly before it is hacked. We must find a way to bring this forward it is very important for the region.

We have 5 students on placement at the moment and 3 have been offered jobs. The only pointer we were given was to look at this course maybe from a marketing point of view. Maybe to make students more savee.

In relation to the Green Cert, is it possible to get this from a Level 6?

Yes we will have made more links with Teagasc and Revenue as this will give more access to funding and grants and this is what the student is looking for. Maybe we also could bring the expertise for this from the Department of Business and Engineering, use in house expertise. We have established that we can get accreditation for prior learning. We need to talk to Teagasc. We are open to discussion so we will find a way forward.

Level 6 Archaeology Full time Programme we have found that our intake would be 50/50 some leaving cert students who may not have got enough points 1st time round and some mature students who would have a huge interest in Archaeology. Mature students are happy to do the course but are not interest in 4 years of study but once in they get fully committed and some do stay the four years.

Yes we can see the progression of student numbers because of this. Decline in 13/14 and rising again in 18.

This may also be due to the availability of work, the course looks more positive. Staff/Students here are 100% committed. This is more practical oriented rather than having Science based modules. When they go through year 3 or year 4 they realise how important the Science based modules help them in achieving job success. Some Leaving Cert students go on to do Masters / PHD

Work placement is a 5 credit module. Maybe replace with a 10 credit module. Work scope is greater with work placement but maybe have greater duration. Have you got a strategic plan for this module and your changes? Who will carry out the on-line Archaeology?

Yes we have two special purpose awards on line, starting in January 2020. We have two cohorts of students including international students, this drives at the American Market. Delivery of this course will be filled by staff who don't have full hours.

For Archaeology attrition is fundamental. It has been the case that we would have some typical Leaving Cert students and we would have some mature students. The mature students were not doing the course to get a job but were doing it for the love of the subject. So we found Practical modules for year 1 were better to attract students. The Science based modules were difficult for the mature students so we have removed these from years one and two and made these more assessment based i.e. 100% CA which suited the mature student better. Students in year two and year three realised the benefit of the science modules after being at field school. We also introduced work placement at the end of 3 into year 4. This is a 5 credit module and this is assessed in year 4. This broadens the experience that students can get and makes them more work ready.

Why 4 weeks? Is this not very short? This is the minimum amount that they need to do but most stay for the full summer.

B.Sc. in Science. This is general entry? Yes. What progression is available to these students within the faculty? There is Biomedical, Pharmaceutical, Occupational safety and Health and Environment programmes that they can move into after year 2. There are core module in stage 2 but is there support for cognate modules.

Yes, We try and identify any gaps in the knowledge they have gained. There are lots of lines available to them i.e. pre-recorded lecturers, notes are all readily available. Lecture meets the students and gives them the notes or the pre-recorded lecture. One of these modules is Legislation and risk assessment.

Work Placement: How does this work across the Institute. Overall the length of placement is currently linked to a specific programme but there should be consistency across programmes i.e. Minimum length etc.

Environmental Science: In Environmental Science all students do placement. It takes place mostly after year 3. Work placement is positive for employer but also for the lecturer on the -Environmental Science Programme. Student comes back more mature and can see the application of their study. Maybe more resources should be put into this. Students can see the benefit of work placement and have real life examples. They know the relevance of the modules when they return. Employers are keen to keep students in employment after placement.

There can be an issue that not all students are able/ ready to go to industry for placement. Is there a mechanism in place to enable this student to achieve the learning outcomes? Yes. We have had students in this position and we have facilitated them by working with Researchers and they develop from here. It is not the fast paced environment of Industry but the project is usually linked to Industry even though they are not in Industry. The challenges student faces is very different, we need to work out what is best for the student. Maybe we should have bespoke placement in place.

Is the work placement embedded into the assessment? Is it Mandatory and how is this assessed? This is accessed on specific learning outcomes. They do a presentation, a report and have a daily work note book so all is recorded and it is quite clear the steps the student has taken.

Do you think you should move Work placement from 5 credits to 10/15 credit module and have it assessed yearlong rather than semesterised? If semesterised this must be assessed at the end of the semester and a mark given. Legal issue here.

In Occupational Safety and Health programme the work placement mark is integrated into EBL in year 3 and 4. We have Environmental Health and Safety Management project, students work with local company and implement an EHS system for them. There is direct feedback from employers. Historically employers gave a grade to the student but this was difficult to integrate so we have moved away from this. They also do a report, presentation etc.

We have currently as part of this review introduced placement into year 2/year 3. Here because of this, specific skills are required i.e. manual handling, training, ergonomics skills etc., the skills are "Task Specific". As an alternative, what mechanism is in place for students who cannot go out? Is this mandatory/ opportunity based? This falls between those who don't do this work experience or have not secured placement and those that have done so. How do you bridge that gap? When they return they will have to fill out that training as they are linked to learning out comes. They will have to do an extra task that will achieved theses in the Institute.

Length of time involved is 3 months work, summer based, students have a greater opportunity to get placement during the summer months.

Would Environmental Science not consider year 2/3 placement. No this would not work for Environmental Science Students as there would not be the same job opportunities available. A lot of the work would be EPA (Environmental Protection Agency) regulated.

Centralising work placement is the way to the future to free up the academic staff member while ensuring student are visited on placements.

Do you get placement for students or do students get this themselves? The companies are the same year in year out. Students can get their own placement but if not staff help out which is usually the case. It would be great to centralised this and take the time constraint from staff. Direct contact with the employer, is very important for Industry and for staff i.e. visit student on work placement in Industry. At the moment all work placement is all paid. There is a lot of work out there. We also need to be mindful and inform students that Occupational Safety is not all about construction; it is relevant to other areas also like pharmaceutical and all areas of employment. Placement gives the student the opportunity to see and experience this. This is very important marketing for the course to get this message out there.

Do you visit students on placement? Not all every year but contact is always made with the student and the employer. Centralising work placement would be invaluable but visiting students makes you keep that contact which also is so central to the work placement module. Video conference is not the same thing. Increasingly employers looking for students do interviews. This is their path way for their career going forward. Practical aspect to courses here ensures the student can hit the ground running.

Need Regulator and IOSH to promote the career in Safety –getting the right Audience is important. Seem to be totally dependent on CAO. Need good marketing for courses, back door is very important-direct entry

Fitness to study policy does the college have this? Yes It has been reviewed lately we are actually about to start a Level 7 with Cavan Further Education College. Some first year student will start in Cavan if they wish, if they feel that they are over whelmed by the Institute and if this is best for them and they will study out 1st year programme there. Will your staff give the course there or how does this work? No we have what we call buddy lecturers who teams up with the staff in Cavan and guide and facilitate the lecturer there. The students will come to induction here and they will come on campus here maybe twice a year and use the facilities here that they need to use that they won't have in Cavan. They will get the same training, knowledge and experiments that our first year student here will get. The only difference will be that they will be in Cavan.

On-line students who are they? Why and how do they benefit. Is there more work involved with these? Yes Staff are 80% education and 20% pastoral work. This is required to make the student believe that they can get through this and succeed. Because of this the level 6 module on Water course are all 100% CA work. This helps take away that fear and strain. These students may have missed 3rd level education and now realise that their career needs this.

With Occupational Safety on-line Level 6 is a 12 week special purpose award. Safety Reps this may be taught of a as "taster Course". The L7 is more practical based, Level 8 is management focused. If you complete the Level 7 full time course you may move to the Level 8 part-time course.

With the on-line you have this virtual classroom, but the students talk on-line to one another. They also have their own group set up to messages to one another; they also meet at workshops and bounce problems and ideas at one another. This really benefits and it reinforces cultural identity.

If you go to Page 26 of Volume 1A. How do you see yourself in terms of the numbers here for part-time courses? From looking at this you have a bit of work to do to catch up with other Departments. This is not a

true reflection of our part-time courses, we also have the Post Graduate Cert in Food Regulatory Affairs and the big one is the Level 6 and Level 9 with Irish Water. We have a five year contract with Irish Water that will supply students to us for our water quality courses. Increase in numbers is strategic as we build on Level 6, 7, and 8. We don't have NIBRT, we don't have springboard for our courses so we have Irish water. Level 6 is for existing operators, Level 9 are for a range of backgrounds who wish to move into the water quality area and see opportunities there. We are driven by marks and standards. Life Science Department took off with Springboard and NIBRT. Environmental Science is smaller but growing very slowly but strategically but we are getting there. One example is we had 50 applications for 10 places so this is not reflected in those numbers. These students will be trained in a cognate area. There is a lot of interest in this area nationally. These will be part-time students. Is there anything for fulltime students? No this is solely at the minute for Irish water and their employees but later other groups may buy into this.

Validated new programme in Environmental Science with Ecology Level 6, Level 7 and Level 8. The reason for the new programme was that numbers were steadily declining in recent years and we had to do something to save the programme. Numbers look as if they have increased this year but using the expertise of the Occupational Safety Programme we will have the students work ready and competent. They can become Ecologist or Analyst. Analytical Chemistry is coming back into 4th year as we found we were losing students to Forensic Science. Is this not starting until 2020? This is true.

Career Guidance is not a big influence on bringing in students? Has there been any liaison with the Regulator or with IOSH. We need to get them to promote this career. We showed pictures lately to students of the older hard hat student versus the student in the lab and asked them which was the Occupational Safety course and they all picked the hard hat but in fact it was the same course. The areas are so diverse and they need to get this message out there that not all jobs are in the construction area. Getting the right Audience is so important. Maybe liaise with Career guidance teachers.

We have a system whereby 4th years go back to their own school and talk about what they are doing here and about their placement work. We need more resources and we need more places if we are to develop more. We have reached our target numbers at the moment. We cannot run courses with the resources that we have if we increase numbers

Do full time students take up more Resources? Physical resources! Yes. Could you accommodate an increase of 400? This would depend where they are? Might have room in one course but not all courses.

We now have a new marketing person and we have one Ambassador for the College. We went back to the original system. We send the lecturer out to talk to the student and to the career guidance and this seems to work. How does this work? Is it recognised? Do you get time off for this on a weekly basis? This is co-ordinated between the lecturer and the marketing department. Environmental Science has struggled across the country you have got to make the connection with the student and the career guidance.

Who sets the CAO points? How are they settled as I see that while your numbers went down your points didn't move a lot? This is done by the Executive Management level of each college. Don't set it too low this can be a black area,

There seems to be an open door intake to health and safety i.e. large number of students available and a shortage to Environmental Science. Is there an opportunity for a graduate course? We are seeing this at Masters Level Engineers who may want to transcend to Health and Safety. They see the opportunities are there. Physical effect: is that waiting list are great. They give people a sense that they really want to do this course.

Is it because of the Masters that the post grad Diploma dropped in numbers? Not really competition is the reason. There are many out there doing what we are doing. People are now applying from other arenas e.g. Environmental Health and Safety Degree. Did you consider this? Yes but we fear that we would take from the other courses that we would be just moving around the numbers i.e. taking from the other two pots and not really growing in numbers. Employers figures are very good, plenty of jobs in a span of different areas and we have 35 years of graduates out there.

As for the Academic Quality procedure you seem to be tweaking as you go along and then you get them approved internally. This process i.e., Programmatic Review improves the team and is all part of the quality process but it is much more empowering to look at the whole course. There have been big changes for the last five years.

What was the approach to Review? We are not allowed to change more than 30%.

This has come through and agreed at the Academic Council. How do you measure this? Purpose of PR is to rip things up and maybe start again and look at this in totality. This may stifle Department development as these forces the Department /Faculty to Annual review. It does not allow you to focus on the core elements that you have to deliver.

Module Manager imposed constraints beyond the ability to make changes. Way too much detail given in Module Manger. Also the feedback from students very important what is working/not working? Student feedback says there are too many MCQ and practical exams for certain modules i.e. chemistry. Is there another way to look at assessment rather than the typical assessment?

How do you decide on number of assessments, weighting etc. Need to make sure the students are not burnt out. Are there guidelines e.g. 5 credit module

Literature Review: you are doing a lot of research. Students are torn. You may need to reduce this as we have identified they can meet the learning outcomes. This need updating to ensure the most up to date reading material is used.

Higher Cert Don't know where they belong. Their ability coming in may not be comparable to others because of not being in Education for a number of years previous. But by the time they reach level 7 they find it so easy if they do stay. This process of bundling these students in with other groups is not allowing the department to grow. Maybe do exit interviews before they transfer or leave you may be able to talk to these and they may not leave.

Future Programme plans and Development. Academic development is stifled due to 30% ruling for the Review. The strategic plan is helping staff to do things e.g. the Cavan initiative.

When you propose new course you must fill out the EAP 1 form and you must link the changes to the strategic plan and how it influences your programme, For example Irish Water contact was made a long time ago but they were looking for Validation for their own training but we could not accept this. It was not available and it was not in line with our strategic plan. Hence the development of the Training Level 6 where we trained already employed individuals. There could be potential to develop and apprentice module from this for Regulated facilities i.e. EPA you could look at developing a course along this module for them.

Afternoon session Environmental Science 9/5/19.

The Staff not involved in the morning session introduced themselves naming their expertise.

How did this all work? –Module Manager.

Module Manager – initial Draft copy. Each individual pulled in material but there were constraints which were beyond the ability of staff to make changes. The team worked extremely hard to produce the documents.

Competency/Context: there is the National Framework Qualification. Way too much detail in Module Manager. We can see the work that was involved.

We are proposing that team members review the modules and ask yourselves what is the driving factor for these changes.

Occupational Safety and Health: The rationale behind our changes was that we spoke about constraints of module manager, so we decided as a programme to put everything out there, to put everything on the table for discussion. We met with stakeholders, contacts in Industry, fulltime students and on-line students. We spit into teams. We discussed year progression, the physical Sciences and Occupational Health/ Hygiene. We also looked at the physical progression of students. We took into and took account of the feedback from students –we looked at how things worked, what was working and what was not.

Where were you ensuring assessment weightings, the number of assessments, ensuring students were not burnt out. Are there guidelines to this? We have mostly 5 credit modules, these guidelines come from the Planning/Process committee. We had meetings on this. We sent out a document and each person filled out where they wanted assessments. Yes there was overlap, we looked at this and we also looked at the old matrix and we rejigged this.

If there was a lab report did you ask yourselves is this sufficient or do you also need an assessment? Did you look at the variety of assessments? It is important to get a broad range.

Cell Biology: I see that this is 100% CA on one page and 50% CA on another. Need to identify which is correct?

We are aware of this. The module descriptor itself is correct. 50% assessment and 50% Final exam. This was a problem with Module Manager and we could not fix it.

As a programme, how did you decide on the overall balance, every module is core? What rule of thumb did you use? How did you grade these?

We looked at what worked well in the past and reflected on the experience we had with different modules. We had no overall strategy. We looked at what tends to lend itself to presentations and group work rather than final exams.

Student Feedback. Students had a problem with feedback or lack of it on CA work. How do you measure this? How do you give fed back?

The main way is through student surveys. It is challenging for staff to keep up with CA feedback it becomes a balancing act. It is down to the time they want it back and the time that we have to get this back to them.

Do you give one to one feedback rather than release results. It can vary. Sometime some like to give electronic feedback through Moodle. We also have an assignment matrix which shows the students the scores based on the results i.e. the range of results, this helps them see where they are sitting in the group. Technologies are helping with results. Sometimes feedback may not be recognised if it is not attached and handed to the student.

Assessment Matrix is very helpful. There is good variety and small pieces of CA work plus exams. There are no complaints in the student feedback of work overload. What was the strategy of exam versus CA? How was this weighted? Did you discuss this as a team? Can the Learning Outcomes be achieved with CA work?

We are cognate of the fact of over assessing. Some modules are now exam based rather than 100% CA. This came from the student. If the assessment is worth 30% this is broken down to two maybe three assessments. The structure is usually 50/50 on-line. More recently staff have got together to compile one large exam across three modules, rather than a number of smaller assessments. This seems to work much better for the staff and students. Focus is more defined. Other CA on-line are more of quiz style. System is very flexible. We find especially usually the class Rep will let you know if the system is working and maybe to pull back if it is getting too much.

Student Performance: we could not find evident of this anywhere. This is very important for the marketing of the course and for the overall view of the course. Maybe introduce this somewhere in the documents. Is there a good spread of Merit, distinctions etc.

All the data is there it should be easy to pull this out and show on a table and also show year comparisons.

Overall if we look at the final grades are they cumulative marks or are there a certain standard they must meet.

Yes we have internal standards (gates) set in Science that the student must meet in their final exam where there is a practical element. This is 25% in year 1 and 30% in subsequent years. Where there is no practical component we just add across to achieve the final grade. We also have 75% minimum attendance in practical classes.

How are they notified of this?

All students are notified of this in year 1 at the start of each module in their lab session. So students are fully aware of this. How do you monitor this? Is it strictly 75% attendance or is there any give.

This is a personal decision. At 65-70% you must ask yourself have they met the learning outcomes, and then you put in place a practical exam if needed.

Overview of the course is very positive. There is a lot of work involved. Staff feedback at day workshop very good. Am I right in saying students on the Level 7 full time do not usually progress to Level 8. No, the majority do progress. Is this ab-inito or add-on. Add-on.

From the student feedback Moodle seems to be used extensively. Is there student engagement and directed student learning? How do you get attendance at lectures it using Moodle? Moodle is only used in part. Some of the information, basic information given through Moodle but they must attend the lecture to get the flesh of the information. We use only Moodle as a support. On day one this is explained to the student and also what they can expect. With the module legislation in year 2 we found that the numbers were dropping in attendance at lecturers, so we decided to put a lot of gaps in the notes and attendance returned. Some class groups can be very engaging and dynamic.

EBL (Enquiry Bases Learning) Module this is very interesting. You assess the product in the process. EBL in 1year 10 credit module it then becomes a 5 credit module after year 1 why? The process is very important. This versus the Product, communication, forming groups, brain storming, solutions etc. We have a very good guidance document on this. Products vary It can be a presentation or something along this line. It develops the

skills of team working. We can dig at this to see if this is just surface learning rather than deep learning. How much did the student understand having gone through this process? They also get skills for conflict etc. It is all group work but it is individually marked. We have Peer Review etc. we find the high achievers are not keen on group work but this gives other students the chance to contribute their skills also. They get confidence along with content. Naturally they focus on the content and in doing so they build up their confidence. Huge development. They learn how to structure, hold and develop through a meeting; this comes as a natural progression.

Is there an opportunity to roll this across other programmes –yes we in Environmental Science will be dipping into this with our programmes we see how successful the Occupation safety students are.

I see that you have no plan to develop other programmes. I think this is wise. You have a lot of new programmes. It is now time to let them embed.

Proposed changes are minor enough. You want to achieve OSH accreditation / Board Altrainnis. We had accreditation with Bard Altrainnis but this lapsed. We should receive this back as the final year has Occupational Health/Health and Wellbeing all topical in today's workplace.

Does processes like this help in terms of external accreditation. Yes IOSH comes on site here and assess us.

Course is very applied. Some of the areas are invaluable to students. The only thing is the weighting that you give to the placement module. This can be quite low. There is a lot of work involved here and also a lot of learning so this should be reflected in the weighting. This should be thought through and maybe reconsidered.

Students going to Industry in 3rd year and 4th year. Do they give a presentation on this? Yes they do, they give this to the class and they are asked question and have a peer review.

Student retention. Could be a problem in 1st year as the Module are Science based. We have graduates come back and talk to the students on-line and in the full time courses. The students come together and a guest speaker comes in and tells them where they are now and how they studies here lead to this.

The Safety Reps Course, I was not aware that you did this here. This needs to be marketed better and let the people, know that it is happening here. Need to focus on advertising for this. Yes we are aware of this. We have just gone for springboard funding.

Health and Wellbeing have you added this in, you focus on Management systems and their Health and wellbeing. Is this a 1st to be offered in Ireland? Who else is doing this you need to advertise this also.

Applied Archaeology:

We have now started to grow this on-line. We have changes put forward and plans put in place with module re-jigging. We also have the introduction of work placement. We have 2 on-line courses.

Was this was a direct reflection of feedback from students or was this from student surveys. Primarily student feedback. We listened to students. Such as the training excavation in year 1 is not always suited to the mature student. Work placement may allow for diversity of employment. Lots will gain employment after year 3. Work placement will allow for students to come back and gain a new range of skills.

You should look at the Aims/ Objectives and the Learning Outcomes again. These must be clear for each year of the course. They cannot be the same for different year. They must be clear from the outset. If I do year 4 I will achieve a different level of learning outcomes. Differentiate between Level 7 and Level 8. Level 7 maybe

more practical base in Industry and you will achieve greater Academic skills with Level 8. Final year Projects are like a badge of honour. Students are leaping to show off what they are capable of.

Programme Description: sell more clearly what you are offering. Students who have experience may get employment or may decide to come back. What is the motivation here? Is it the work? We have found that people choose for different reasons. They may want to get the experience or it could be finances or they may go into the field discover this is not for them and they may want to do something different and come back to study to allow them the opportunity to do this.

What is the feedback when they come back? Do they feel it is worthwhile? Have they benefited? We don't have a large number of students to ask this question to so it is difficult to figure out how they feel. They gain a lot from the project work. They find this challenging but it is of immense benefit to them. They realise that it a will help them develop in the future.

Field School: have you considered making this more extensive. Logical to do this. It is difficult because for the last number of years the field school has been piggy backing on a project. To do it more extensively would mean working on this full time for two months of the summer and this is not feasible after College finishes. You would also need an Ecological site that you had a budget for, which we don't have. So this would require funding which brings another level to this. This would be a much bigger task than the 2 week field school that we have at present. Field School is very much the beginning of this. We have also a lot smaller projects along the way.

The conservation module would this not fit in with this. Have you considered giving this greater credits, with the building of skills across year 3 and year 4? The field excavation will come through in other modules i.e. Archaeological Surveying form year 3 and Year 4, students may not be getting enough practical work here but this links in with the excavation. We use Archaeological Illustrations, soil sample are analysed /processed that have been taken from the excavation so it is all linked in. The students get real lab experience and application of learning.

There appears to be a huge picture of "Pass" students. This depends on the cohort of students that come in each year. The number of students are low. Level 7 students may have struggled but I see Level 8, 5 out of the 8 students who got to graduate got 1st class honours in 2018 as opposed to L8 had 10 passes in 2015. This depends on class, age gender etc. there are a number of factors especially in Archaeology as opposed to other programmes that contribute to this. We have found in the past that the mature student often brings up the younger student.

We are very impressed with the Department with regard the quality and quantity of work of the group as a whole. They are good team changes, this is a direct reflection form various surveys etc. while also working on feedback form employers and students. Commend staff members for very comprehensive graduates.

The work placement element, it is great to see this. What challenges do you see with the implementation of this? Hours are already available as some staff are not on full hours. One of the challenges is that we need to place 3rd year in advance for next year. Students already have jobs or they have different plans. They require proper full employment to buy into this. We have already had a CV workshop, whereby we built CV's with them. So while there is digging work out there, if you dig or don't want to dig there is work out there but it is more challenging? Most of the work is in the digging world but some people don't want the nomadic life style, this can be challenging while also trying to place locally. We can build on this whereby placements can get better and easier in the future.

Engaging with employers is very important both for the student and staff. Therefore continued Professional development (CPD) is very important for all staff it is also very good for the programme. How do you see yourself dealing with this challenge?

Risk management, Negating circumstances and responsibilities may put these on a smaller number of shoulders, if somebody falls down do you have enough staff to look after this? We have enough staff at the moment. To increase staff we need to see that this programme is fully recognised and that it is sustainable. We need to work hard on the profile of the courses.

One external examiner mentioned the chronicle nature of your subjects and structure of your course. Prior to the changes year 1 had a lot of science based elements, this was the purpose, to show what you will move to. This is going by date. Chronology is important for Archaeologist. It is important for the structure of the course. Chronicle sequence makes more sense.

How do planners interpret Archaeological reports? This is an important element to Archaeologists and this runs across the School of Engineering for builders and planners.

Is there anything you can do as a School? Could you have a workshop to influence the other School to have an element of Archaeology in their courses? There is a huge cross over with a lot of courses. Archaeology has a lot of commonality/interdisciplinary across the other Schools. This is an area that IT Sligo could work towards as a group to combine courses.

Environmental Science

Cavan is a new area for the school to be involved. Who are they? They are FETAC, Level 5, Level 6 with the ETB (Education Training Board). Working with smaller colleges. Some first year student will start in Cavan if they wish, if they feel that they are over whelmed by the Institute and if this is best for them and they will study the 1st year programme there. We have what we call buddy lecturers who team up with the staff in Cavan and guide and facilitate the lecturer there. The students will come to induction here and they will come on campus here maybe twice a year and use the facilities here that they need to use that they won't have in Cavan. They will get the same training, knowledge and experiments that our first year student here will get. The only difference will be that they will be in Cavan.

Environmental science was the bed rock of what Sligo was producing. The environmental area goes in and out of favour. Now with climate change, species lost are you finding a return of students? Last year we had a return of 21 students into 1yesr in 2018. Previous year's numbers had dwindled. These students were very energised, this we had not seen for some years. The Public sector embargo had a huge effect on this course. Challenge is for parents to see the potential carer that the student will have. Important to know there are jobs there.

Structure page 71 1C

Environmental Protection L7 and Environmental Science L8 including embedded, this is the last intake into this programme as we now see it. Yes this is correct. We are holding the activity for the life of this programme, we have a learning agreement with these students.

What commonality is in the new programme as it rolls out? It will be one year after the other 1-4. Year four will not be offered until it is rolled out. You have embedded Level 7, Embedded Level 8 why Level 8? Is embedded Level 7 not enough? As an employer what does this mean. Is Level 7 Environmental Protection and Level 8 Environmental Science not the same? Where does it sit? Level 7 Environmental Protection Level 7 year

three Environmental Science. Where to from there? Is it Add-on, or on-line? Level 7 is full time 3 years, Level 8 is full time 4 years , you can move to Level 8 year 4 full time after three years full time Level 7, as an Add-on or we have on-line Level 8 over 2 years part-time. It is different from Environmental Science L8 as it is B.Sc.in Environmental Management. It is a different target market. This is aimed at people who are working, people who have transferred or wish to up-skill.

In the decline points still stayed the same, demand just was not there. You are at the moment using the PLC course, FETAC Level 5 direct entry to year 1 rather than directly from the CAO. Yes we are working with Stakeholders and helping them develop, working with them as opposed to working against them and competing for the same pot.

Cohort in the lab is there is number? Yes they are 16 students. What if you have 20? Do you run the lab? Yes, we can have these in with another group as 1year labs are similar across all programmes they are balanced out with other courses.

New Programme: B.SC in Environment Science with Ecology. Is this a name change only? No we did survey and we looked at the demands of the field. We have very good ecologists on board. We said we would try this and if it does not work we will go back to the drawing board and look at this again. The key is good Marketing strategy.

Student feedback: Too many practical exams especially in Chemistry they have 3 MCQ and practical evaluation on a weekly basis. Is this over assessment? The 3 MCQs are on lectures only. Is there some other way of looking at assessment loading. I suggest that you review this and maybe have even 2 MCQ's.

The indicative syllabus is 5 lines in some places and in others it is half a page. There appears to be no standardisation across the board. Some are from the new strategic learning process. Even so there should be standardisation.

Learning Outcomes need to be review. The different stages need to be clearly outlined Take the NQF (National Quality Framework) there are standard verbs, use these. Students today are getting much more legalised.

A lot of the modules don't have Assessment Strategy, maybe for this use; Assessment strategy will be made available at the next available sitting.

Reading list –some go back to 1981 surely there should be more up to date reading or more recent editions of the topic. Check this and Revise. Literature review is not divided out enough.

Form of assessment: some say unknown. This is a legal document, this should read MCQ we need to go through this a bit more.

Environmental Research Project year 1 and 2.

Is it the intention that this should be a year long Project. If it is semesterised it should end. It should be assessed as a separate module. Different codes are needed if semesterised. Don't get marks for elements assessed you get feedback rather than a mark. This should be yearlong assessment. Marking on some work, this is legal issue. Need to sort out the delivery i.e. is it symmetrised to year long. You should have 30 credits after semester one and 30 credits after semester 2 if this is the case. Also there is an issue with 5 credits for 12 hours and 10 credits for 9 hours. Same marking but different hours? Reminder that this is a legal document. This module needs to be revised in total as a yearlong module. One module at the moment you are double marking. Assessing the same module twice.

Is it because of this great word "Sustainability" that the course died? No at the moment we have just launched our "Green Campus" as there are EU regulations coming down the line. We will be employing a "Sustainability officer" so it is still very much to the fore.

I gather that field trips are not happening as much as you would like. How does this operate? A list is compiled at the start of each year for each programme and this is submitted to the head of Faculty who allocates an amount and we go back to the drawing board to re-jiggle trips to suit the budget. A lot of the faculty budget goes to consumables. Bus trips are maybe seen as not to be as important even though it is the core of some courses.

They're the most cost effective way of giving example based learning.

Module Manager need not to be overlooked as this is a legal document. If it is not here you cannot defend this. If this is a national thing we need to work the same nationally. A generic statement is fine but if it needs to be specific i.e. 75% attendance it needs to be in the document. If it is not there it cannot be defended.

Higher Cert/B.Sc. in Science

This is a pathway for students, students may come in on low points or through springboard or maybe they don't know what they wanted to do.

Higher cert is generic Science Level 7 and in year 2 they pick specific electives, like occupational Safety, Biomedical, Pharmaceutical, Environmental science. You can choose at the end of year 1. If they are progressing from one to another i.e. from Higher cert to B.Sc. They must progress to Add-on and not Ab-initio, so as not to be double awarding. This is the ladder pathway. B.Sc. in Science is Level 8 target a specific market of general science students who are not fully ok with the pathway they wish to take in Science.

The co-operation with Cavan, are there other similar colleges that you could approach? Yes, we would like to run with this in more ETB's. 65% of our students are on grants. Have you looked at International students: yes we have had two students this year? Erasmus students also here but we unfortunately don't make money from these.

Research plans for the future: funders respond to societal change.

How do you see Research for the Technological University? How is this impacting on your work? Do you have the time to develop this? Challenges is getting the right researchers for the project.

Are you getting enough time to develop Research if you so wish.

Experience is a big thing here. You get 2 hours up to a certain level. This Cap is now gone. Is help available to those staff who want /need support?

As a researcher you get 1 hour off per week per semester to supervise. There should be more support made available to a researcher and also to other staff if they wish to get involved in Research. There is National funding and also International funding available. How do you get access to this if the pathway is unknown to you? It is hard to get funding even from the IT Sligo bursaries. Track record is important to attract funding.

Are the supports there internally to get you out there? 2 hours per student per week is available for Research. I see less than half the Department is involved in Research. Supervision can be difficult. Juggling the demands / requirements of funders along with keeping your full time job going steady i.e. asked to write reports while dealing with demands from funders. This can be extremely demanding and challenging.

Morning session Environmental Science 10/5/19.

All Departmental staff were present.

At the previous day session it was asked if a module requested by Cavan could be presented to the meeting for Approval. This module was: Interdisciplinary Science.

All staff involved and the Panel were given a copy of the module details from Module Manager. A brief explanation was given to the rationale behind this module...

This module was requested by Cavan to give students an introductory taste to a number of disciplines i.e. Biomedical, Pharmaceutical, Health and Safety and Environmental Science. The intention is that this will help students choose their pathway to future study. It will be taught on line. Students will come here for 2 weeks to open day and they will be introduced to various programme and also do some labs. Cavan are happy with this proposal.

When have they to pick their option? At the end of year 1? And then will they definitely come to Sligo. Yes, definitely this is the agreement with Cavan and with the student.

Whose responsibility is the handover and what about Resources?

There was a full process of due diligence involved for the student. We looked at the labs, finance, quality assurance of lectures and the commitment of Cavan Educational Training Board. It has been agreed anything they don't have the technical equipment for they will come to IT Sligo.

Are you confident that they will get as good an introduction to 1st year as the 1st year student here? Yes 100%. They will get the same training, knowledge and experiments that our first year student here will get. Staff here will work closely with staff in Cavan.

Are lecturers from IT Sligo going to Cavan? No: We have what we call buddy lecturers who team up with the staff in Cavan who will guide and facilitate the lecturer there.

Research: Is this spring board funded? No. We believe a lot of people (staff) in Environmental Science are not involved with Research.

Do you feel pressure to get into Research with the search for Technological University status?

This may depend on the contract you have in IT Sligo. The new staff entering may feel that they have to get involved and their contract may say this, so this does put a lot of pressure on staff to get funding etc.

What is the progression from AL to L.? Do you need a lot of research background / performance to get this? Is it easier achieved if you have been actively involved in Research? Do you have to demonstrate this research quality? Hopefully, there is not undue pressure to complete Research. It must be remembered that your core work is to teach students.

Early progression can only be achieved where you have a Ph.D. Can't meet the early progression metric if you don't have a Ph.D. even if you are Research active. One hour a week is allowed for Research for Ph.D. this is an impossible task. This need to be verbalised. This discourages staff from getting into a Ph.D. Studying for a Ph. D can be a negative experience. Work load is high.

When you are studying for Ph.D. conferences are where you go and make contacts and connections, these can be great for your Ph.D. but sometimes getting to conferences can be difficult. Budget to get to conferences has improved slightly in the School but it has it challenges. Staffs are often directed to the capacity fund. This is an onerous task to complete the application and takes a lot of time. A strategy needs to be put in place for the Faculty budget in a fool proof way. In the past it was support that was lacking for staff but this has and continues to improve.

When doing research, there is a transition phase when you need to focus on your Ph.D. and Research but you are conscious of lectures and you need to put in extra effort to meet all demands. This can be impossible.

PMDS could be a clear way to get into the hat. This can be a two way street. You can tell the boss what your plan is and your intention and they can inform you of what you can do within the budget.

The strategy for the budget needs to be completely transparent with fairness and equity.

The distance learning has a huge budget. A lot of Science on-line courses are bringing in huge money. Some of this should be directed back to the School for direct staff resources and staff training.

The teaching load may prevent staff from getting involved in Research even if you had a desire/plan to do so. New staff teaches 21 hours and they are then expected to be Research active. Other Schools e.g. Business and Humanities find ways to take hours from staff to allow them to do Research.

Again, On-line learning is bringing in huge money, there should be system in place where you could buy out hours (teaching) to allow staff to complete or get involved in Research. On-line should allow and prepare the faculty to focus the priority on Research funding and the funds to come back to the faculty.

If you are serious about Research, this is not possible with a full teaching load. Research is hugely challenging. Trying to do both puts huge strain and there is vulnerability for huge reputational damage.

Training should also be provided to completing application forms for funding and guidelines demonstrated on how to achieve funding.

Panel very supportive of all that has been said here today. More modern courses come and go but you are building your department on what you have. You have a good future in this area. All future documentation should be provided electronically for the future and in line with the department of Environmental Science "sustainable future "plan. This Department needs to lead the way.

Department of Life Sciences

Meeting with Head of Department and Programme Chairs

Q How has programme performance been since last PR?

A A number of changes, now 1200 students. Restructured faculty to create a New Health and Nutrition Dept. This has led to increase in satisfaction with TT as it is easier to do with less students.

The Joint programme with Ulster University is very important to dept.

The Masters in Med Tech Reg Affairs was initiated as NUIG approached IT Sligo, the IMDA also got involved.

The MIPS QP Programme was delivered with RCSI, but RCSI decided they did not want to continue to be involved. IT Sligo has continued to deliver and is on the IMA list.

The department undertook a Student Survey that was very extensive. They found producing the PR documentation very time consuming. However, from survey number of student who would recommend has increased.

The issues raised included feedback and this was taken on board. There are assessment matrix but onus on the student body to get involved, and sometimes student not there to get feedback.

Q Way to tackle is get evidence that feedback is given. What it was and when it was given. Feedback comes in many forms.

Q It was noted that Level 8 students were more positive in survey.

A Changes occurring in student body.

Q You should review how you are giving feedback. Can then give evidence of that it was given. Design assessment so that feedback can be given.

A Online students are given a lot of feedback. Feedback difference between attendance and online - can both be in part addressed online?

Q Students can be asked to incorporate feedback in next assignment to demonstrate they have it.

Q Is peer mentoring working across Faculty?

A Peer Mentoring working well and is very important. It is a mechanism for raising issues etc.

Attendance is an issue. There is a correlation between attending lecturers and success.

Over Assessment mentioned, but it encourages students to attend. Students will attend when they know it is an assessment.

The best feedback is where staff can sit down, meet student individually, and give indication of performance, it is a personal communication.

Q This might lead to higher expectations in feedback.

Q Engagement with student is important but staff engagement is important for continuity.

A Programme meetings involved the students. They are asked to pass on issues and these are discussed as early as possible.

Q Are the feedback issues coming through this?

A Individual issues are raised and great feedback is given. It can be managed at the programme level.

Q The issue of too many assessment – Is there evidence that this has been raised?

A Its not raised at specific meetings but tends to be raised in general surveys.

Q Should you raise this at programme level – If you just hear in it survey is this reliable.

A We listen to students and build in to programmes where possible.

Q Could you put this into student handbook. Lay out expectations

A We have assessment matrix. SEATS software needs to be piloted so that students take ownership of their learning.

Q How it is framed is important to show assessments build up developing skills etc. This makes it clearer.

Q Is ISSE data used at dept. level.

A It has been highlighted in school planning that benchmarking ISSE is required.

Q What is informing your programme from outside, is it Surveys etc.?

A Programmes are developed from feedback from companies. Institute has national and international dimension in their development.

Forensics students are based across Ireland.

Each programme also reaches out to industry along with the survey. Student placements enhance this interaction. Very close links with NIBRT – Helping influence where developments are.

There is a QP Workshop every semester and this gives good feedback.

Q Could there be more formal mechanism to capture interactions– e.g. put on SharePoint.

Q How do you keep abreast of changes – Especially QC

A Outsource to industry experts once per semesters. External consultants teach on programme.

Med Tech – Industry working group feed into programme – six Companies meet IMA every year.

NIBRT Biopharma – Biannual feedback

Q These links with NIBRT and HPRA important to get information to keep up to date. Keep current.

A CRM would assist in this. It was noted that local SME interacted with Institute. This was a close relationship and Interaction.

A Are staff coming from industry

Q It was noted that Analytical Chemistry is light in 4th year Forensics. It is important that the document reflects the level. Chemistry required for public sector jobs (through public appointments).

A This is not obvious. In Forensics analysis, Advance chromatography would have 50% Analytical Chemistry. In addition, every student has project working with analytical equipment. There is also a proposed masters in Analytical Science by Dept.

Q Query on title of Forensics - its analytical science degree but does name reflect that? Could it be Forensics and Analytical Science? Reflect on title of programme and module titles.

A Name has changed but companies like those that the graduates produced.

Q In Industry Survey it was noted that industry had problems sourcing graduates, a high percentage said yes pg. 143

A Sometimes Industry is looking for specific requirements e.g. special skills. Looking at new SPA's on this area.

Q Do IT Sligo work more closely with regional industry or is there a disconnect with industry? Do you need to reframe questions, as most companies will say yes to more interaction?

Q In survey QC Analyst, PhD Chemists – seem hard to find from SME.

A Working on new Apprenticeships for QC Analyst.

Q Company take graduates but has to further train them for specialist roles.

Modules

Bioprocessing - Programme will be revalidated as a new programme next week

Q It was noted the dept. is taking strategic approach to align Masters to meet industry needs and align with TU Criteria

Forensics Investigation and Analysis - Garda vetting added

Pharmaceutical Science With drug Development - Based on student feedback. Problem with softer modules – disengagement with teamwork etc. Moved IT modules to be in alignment with other programmes.

Q Self-reflection still need with in programme

A This is built into programme. Including inorganic chemistry.

15 credit module split into component base modules. Content remains same.

Q It was noted that content adjusted to allow students to get teaching council recognition

PT Programmes

Med Tech Reg Affairs

Q It was noted that there was incorporation of New Legislation

PG Cert in QA for Biopharmaceutical Change in title "Bioanalytical Techniques".

L 7 Biopharma

Q Professional body ok with the changes?

A Yes

L6 Cleanroom Manufacturing name change to "Aseptic Operations"

Q What is the Relevance to Strategic Plan and faculty plan of these changes?

A Detailed in Volume 1. Developing in line with strategic plan. Developing Research even though not having a research centre. Allowing students to do bite size awards, especially in online.

New teaching and learning – UDL implemented.

International students from Oman and Canada have increased.

Strategic growth in Strategic Plan KPI, Especially International

High Research base has been developed.

Ethos of widening access through the use of SPA's

Embrace new teaching technology such as UDL

Collaborations with NIBRT and other Educational Institutions.

Q Is there Recommended CPD for new online staff.

A Hiring staff based on growth. For online there are three Levels Basic, Mid, More advanced – Using online delivery for this.

Q Are there formal credits for this training?

A This is being looked at.

Q What are the future programme plans and development

A Masters in Analytical science, Green Chemistry (Possibly not a CAO).

Q Are there any cross departmental developments

A Yes

Q Can the General Science stream be broadened?

R The student will make their decision after 1st year now.

Meeting with full programme team

Panel introduced themselves and the Programme Team introduced themselves.

Chair outlined the process and the topics to be covered.

Q Any comments on the Entry Points and Student Numbers

A Concern as online recruiting well but FT flat lined over last few years. This is due to increased competition and our geography. Staff are being used to go out and visit schools to help in this. Hope to steady numbers and grow.

Q Pass and Retention analysis

A Came up earlier. Data came from central point and appears to have transferred across into the review documentation in a format that does not reconcile with local data. Pharma science – 23 passes – they were taken from a number of different groups.

Q What actions are being undertaken to assist with retention

A Peer mentoring is important. Online programmes influence and give benefit– Students able to access materials to assist e.g. maths – Video, Quizzes,

There is personalised support where students are identified as having issues.

Student handbooks are produced that outline what is expected from the student.

The HOD goes round all classes to meet and say there is an open door policy

Q Are there first year tutorials – This came through EAP7.

A There are in Science subjects and Institute has a drop in Maths centre.

Q Are their staff meetings in how to come together problem solve issues.

R Programme committee meetings happen. However, possibly need more. Lecturers involved in more than one programme board. Staff involved in NFTL digital badges. Videos for staff in Educations Theory.

There are staff forum e.g. away day to share best practice

PBL used. Split groups into smaller groups and work with in Labs on problems.

Q Graduate numbers and employability

A L8 all have work placements in 4th year – Write report and reflect on learning. Employability levels are high with students getting job when they leave college. Also asking for teamwork and softer skills etc. Students need transferable skills to allow them to be of value in the workplace. They need to be able to undertake appraisal etc.

Pharma work placement – spend time on reflection

Q Would students present their project work or placement.

A Yes. They are least confident in this but improve as they practice this.

The development on verbs like communicate, present, and reflect in learning outcomes -especially in oral presentations. Should be captured in modules with large report content.

Q Placement duration – Are you thinking of this?

A Absolutely looking at but not wanting to rush through programmatic review. Still have to finalise views. However, we do encourage students to stay on placement and take year out. May be able to finish by online.

Students who do not get placement must achieve the learning outcomes. A few programmes are now competing for placements. We have to evolve to allow the seamless progression from academic to workplace.

Recognise UDL for learning – especially being ready for the workplace – Need flexibility.

Q Have you looked at the timing of the work placement.

A Yes have looked at this. A lot of discussion. It may not be one size fits all. Except 3 months does not work.

Q Parents would be disappointed that the student did not get placement.

A Some students opt out and do not want to go on placement. In addition, some students cannot travel for placement due to family issues. We bring flexible technologies into the workplace, from across the world. Some students want to do research and go on to a research career over industry.

Q Possibility of longer placements at State lab as 3 months too short.

Q Greater use of online methods to collect student surveys.

A Caution that the percentage uptake will fall? R Students have commented on over assessment and they have identified getting feedback.

This is discussed at programme boards and programme modified to suit.

Having a longer period to do projects helps the student to achieve more – A long substantive project

EAP7 working. Student committees working. Have history of listening to students.

Q How do you look at assessment across programmes. How do you identify over assessment as a team.

A Programme teams useful for this. Discussions happen. Assessment matrix put out by programme chair to complete to ensure no excessive over lab.

Q Explain to student why you are doing the assessment and what skills and knowledge are being developed. Including soft skills. Embed these not bolt on.

A In some instances students are being assessed every week – small assessments.

Q Not one-size fits all but matrix will ensure not peak times when many assessments are due.

A flexibility needed and discuss with students.

On online programme assessment matrix is important as students are in employment and need to schedule their time.

Programme Changes since 2013

A Med Tech Reg affairs

Advice from IMA and new regulations. Student Assessment have changed in light of student feedback

"Learning to Learn" Changed to "Essential skills for Scientists"

Q How was this done.

A Discussed at programme board. Alternative names disused and then decision made at programme board.

In some modules assessment methods changed through Planning and Coordination.

Q Any examples of modules changing semester?

A In online to ensure that terminal exam has a value. Some students know they have passed before the exam. This to ensure student puts value on it.

Q Are there Exam Gate for practical subjects

A It needs to be made explicit in documentation.

Q Go back and look at numbers of Learning outcomes —Some have up to 12, others have 4. Should have 5 to 8 LO.

Q Hot topics in Pharma industry – Is computer systems validations covered?

A Yes. Validation was a full module but was reduced in last PR.

Q Topics that crop up over modules – Statistics and Spectroscopy. Acknowledge that it was building on an introduction from the previous year.

A Reflect the knowledge at the level appropriate.

Q Student Graduate and Employer Surveys

Med Tech Reg affairs

Group surveyed in FT employment. All had progressed in their company of left for promotion.

Getting feedback from companies – data analytics.

Ensure that we do not tailor or programme to suit one specific company.

Under used resource is LinkedIn. Student linking in with staff on this. This was used in data research. Students now use LinkedIn on their professional modules.

Q External Examiner Reports

Pharmaceutical – Good feedback

Externs are very useful in giving feedback to programme. It was noted that it's more difficult to find externs.

There has to be an acknowledgement that equipment need service contracts to maintain it.

Q Planned new programme development

Green Chemistry – Masters in Analytical Science. Commission Qualification programme

New programme masters in Bioprocessing Science – follow on from L8

Science lab apprenticeship

Acknowledge the input of NIBRT and the Benefit from it.

Q Plan for online marketing for this department.

A Centralised Marketing – looking at using online to market online programmes. It is also planned to have a webpage for each department in the near future.

Department of Health and Nutritional Sciences

Meeting with Head of Department and Programme Chairs

Q. Student attrition in later years – how is it addressed?

A. Health Science & Physiology – some students leave after year 2 in order to continue their studies in the UK. Each year of the course has a Year Tutor and issues are usually dealt with by that person. There is an open door policy for students. There are quite a few mature students who sometimes leave when they find employment.

A. Human Nutrition – there are many common modules in year 1 which can turn students off the course. For this reason, an introductory module to human nutrition was introduced. There are Maths tutorials to help the weaker students, peer mentoring, looking at wellness module to help students.

Q. What is the percentage of student with higher level Maths?

A. Not many

Q. Level 7 and level 8 are taught together?

A. Yes

Q. Are level 7 and level 8 students accredited to the Association for Nutrition?

A. At the moment, only level 7. Application is in for level 8 so hopefully soon.

Q. What is the pathway for careers? Is it limited to the UK only?

A. Human Nutrition - No, UCD, UL and UCC have a 2 year MSc in Dietetics

A. Health Science – traditionally students would have gone to UK universities such as the Robert Gordon University. As of late, some students have now gone to Ulster University and Trinity.

Q. Career guidance structure? Is it promoted anywhere?

A. Yes, the lecturers talk to students at the end of year 2 to outline options. Some past students also come in to talk to the students.

Q. Is there a level 6 in Human Nutrition?

A. Not at the moment

Q. Is there an undergraduate direct route to other colleges?

A. No

Q. MSc in Health Promotion

A. Validation panel is next week for 2 MSc's – Health Promotion Practice, Health Project Management. Information will be on the website once validated. Some MSc's will be fulltime, some part-time. There is also an MSc in Sports Nutrition coming on stream which will be part-time.

Q. Do lecturers survey students on modules at the end of the semester?

A. Yes – students give good feedback and this is combined with issues that are brought through the Student Committees.

Q. Are there student reps on the Programme Boards?

A. Yes – the student reps bring their issues to the Programme Boards at the beginning of the Programme Board meetings. Many issues that came up year after year such as IT problems, library etc. have now been resolved.

Changes in programmes

Human Nutrition:

Year 1 – no changes

Year 2 – Determinants of Health 2 removed – Food microbiology introduced. Facilitation skills introduced.

Year 3 – Public health nutrition module split in 2. Medical immunology removed. Food product development increased from 5 to 10 credits. Professional development switched from year 4 to year 3. Marketing module transferred from year 3 to year 4. Toxicology/immunology brought into year 4. Changes are based on good feedback from industry.

Panel suggested maybe introducing a Self-Management Support module.

Q. Is there on-site training for MECC?

A. No but there is a 6 hour online training available.

Q. Is risk assessment covered re: information given to public?

A. Students have to assess public information to ensure it is evidence based.

Changes in programmes

Health Science Physiology:

Contribution from year 2 to year 3 has been removed.

Public Health & Health Promotion – some name changes to reflect competencies and increased project management. Work Placement credits have increased from 5 to 10 because of workload. Exercise physiology stream – 4 new modules introduced for REPS accreditation.

Year 2 – Biomechanics in human movement introduced. Reduced Microbiology in year 1 but health microbiology is still included.

Q. Exercise for chronic conditions – what conditions?

A. Cardiac, neuromuscular, COPD, Diabetes

Q. Social prescribing – is it included?

A. No

Q. Where are students placed?

A. Some in public health, Breastcheck, Special Olympics, CROI, Headway, Data Management/Research, Heart Foundation and various other organisations.

Q. Where are Nutrition students placed?

A. About half in the food industry, research groups, hospitals, Heart Foundation, CROI and various other organisations.

Q. Is Environmental Health taught?

A. Not at the moment

Q. Are any work placements outside the country?

A. Most are in Ireland. Will look at Erasmus in the future.

Q. Are most Nutrition placements in hospitals in the Dietetics department?

A. Mostly, yes

Q. 58 students being placed by 2 lecturers – how much support do the students get?

A. The students are visited on their work placement and there is telephone support with student and work placement supervisor. There have been no issues so far.

Q. Is there a set criteria for Work Placements?

A. The lecturer visits the organisation. Try to go to established organisations such as the HSE and where there are established links.

Meeting with Programme Team 9th May

Q. Changes and rationale

A. Year 2 – Introduction to essential skills in Nutrition – designed to support some modules in year 2 and prep for year 3 – mainly Maths, Stats, Analytical Techniques

Q. Queried Agri and Food Micro

A. This is replacing Health Microbiology. No additional resources required. There are a lot of jobs in the agri-food area.

Q. What are the numbers in Public Health & Health Promotion?

A. Usually mid 20's.

Q. Need to engage with HSE re: skills needed

A. Are engaged with HSE. Lecturers look at skills needed at the end of each year, particularly after work placements.

Q. There are potential gaps in areas such as Health Needs Evaluation, Health Economics, Health Care Technology

A. Some of these are addressed in Settings in Population Health

Q. Behavioural interventions

A. Included because of MECC and Facilitation & Group work skills

Q. Self-management, self-care. Advised to look at local groups

A. Lectures agreed this could be expanded to a greater degree

Q. Brief Interventions could be extended – strategies for behavioural change

A. Motivational Health Interviewing Training undertaken by some lecturers. This can be taught in workshops. Trying to build on Exercise Motivational Interviewing.

Q. Year 3 – Nutrition assessment

A. Included as it is required for accreditation.

Q. Personal and professional development

A. How to prepare for the workplace. Moved from year 4 to year 3 because some students finish at year 3. Needed for CV prep.

Q. Food toxicology and immunology

A. This is replacing medical immunology as not everything was covered in that module. A lot of food research is being done in the Institute so this is useful for projects. Industry requested food toxicology.

Q. Is the Project in year 4 for the full 2 semesters?

A. No – 1 semester. Critical review done, write up and Viva. Projects are ranked and allocated based on GPA.

Q. Microbiology vs Food Toxicology

A. Microbiology is more practical based. Food toxicology is based more on allergens etc. Cell Culture is now included.

BSc in Health Science & Physiology/Physical Activity/Public Health and Health Promotion

Professional Practice 1 and 2 renamed to emphasize the competencies for health promotion. More project management focused. Consulted with the HSE. Try and build the competencies into their work placement and CV skills.

Q. Healthy public policy – awareness? How are they developed and monitored?

A. Critical appraisal of fake news etc. Develop an advocacy plan in workshops. Look at policies in all areas not just health.

Q. Work placement credits increased – Settings in Health Promotion reduced. Exam taken out of Settings. Work placement is for 10 weeks fulltime so fairly substantial.

Q. Exercise physiology/physical activity

A. Better preparation for students who want to go into physiotherapy. Personal training now included in final year. Will have an embedded award of Personal Trainer. Managing chronic conditions now included. Accredited for REPS.

Q. Exercise for chronic conditions – based on what?

A. Focus on cardiovascular, cancer, MS, Parkinson's etc. Students are currently involved on a voluntary basis.

Q. Are those programs approved by Medics?

A. Would hope to have medics involved but not nationally recognised at the moment. If this happens, there will be huge potential.

Panel highly commended the work being done on this.

Q. Access – links with Further Education

A. No official links – more students now coming in through non-traditional routes and mature students. Marketing team target level 5 colleges but this needs to be increased. Advertising is now increased outside the EU.

Panel advised that marketing to nurses may encourage them to do year 4 Public Health & Health Promotion.

Q. Mental Health links?

A. Students do ASSIST programme in year 4 and SAFETALK in Health Science & Physiology. There are at least 2 projects every year on mental health. Developed an APP with student services on services available for students that they may not have been aware of.

Panel suggested compiling a list of training courses available.

Q. Erasmus students?

A. Mainly in other science courses with lower numbers. Can have implications for time tabling as the students tend to 'pick & mix'.

Q. New programme development

A. MSc in Health Promotion and MSc in Nutrition. Online option appealing to people working. Can student for a level 9 Cert 30 credits, PGD 60 credits, MSc 90 credits. Programme in Wellness being developed after consultation with the Dept. of Education as this is taught in secondary schools.

Q. Number of students to undertake MSc's

A. Will start small – perhaps 12

Panel member suggested an MSc in Health Promotion Practice and Public Health.

There is a gap in the market for an MSc in Public Health Nutrition. An MSc in Sports & Exercise Nutrition is also being developed – 1st module will be based on the person's background. Will be mainly online with a few practical days here – done over 2 years.

Health Information Technology also proposed for undergraduate level.

Meeting with Programme Team 10th May

Q. Food Safety – on a global scale

A. Food Microbiology will include bacterial, yeasts, moulds etc. Practical tests will be involved, food spoilage and food legislation are included. Looking to get HACCP accreditation.

Q. Mental Health Promotion for year 4 suggested by panel member. May appeal to nurses. Suggested making mental health more explicit.

A. Is included in Population Health – haven't specialised in any one area. Can look at perhaps making it as an elective.

Q. Operation of work placement – more controls/systems needed to ensure meaningful placements.

A. Constrained by resources – 1 hour allocation for 10 students. Done within normal term time. Very important to visit the students on placement as opposed to a skype call. Very important for building and maintaining links with organisations. Needs more admin support to centralise it in the School. Currently budget resources for placement travel is included in overall Travel budget so it is a very limited budget.

Panel are very opposed to skype calls. Suggested writing a Standards Policy for Work Placement.

Q. Are assessments done while on Work Placement?

A. Portfolio report on completion. Work Placement proposal completed before Work Placement.

Q. Criteria for Pass/Fail

A. Based on many factors such as matching reports from student and work place supervisor, competency reports. Any issues that arise during work placement, of which there have been very few are dealt with by lecturer.

Programme development

Panel suggested exit awards are vital. Need to market programmes better such as accelerated route to physiotherapy, radiography etc.

Q. Special purpose awards

A. In the process of being developed. Will liaise with dieticians when developing them. Will work well for CPD.

Panel suggested PGD/MSc's are the way to go forward because of fall in numbers of undergraduates. Panel very impressed with what is currently being offered/developed.

Q. Number of lecturers supervising MSc's/PhD's by research?

A. Approximately 40% of research being done in Science is in this department.

Research meeting 10th May

Beginning with the expected/stated increase in student numbers, have the proper technical resources been approved or begun to be put in place to back up the increase in students and to support them?

IT Sligo staff particularly the Head of Faculty of Science stated that it is essential that the resourcing is put in place. The Faculty of Science currently has 51 postgraduate students and is going to increase this to 80 in the coming year. The Faculty of Science is expected to exceed its targets for online courses for I.T. Sligo. Technical and physical resourcing is essential, especially to support the students through the summer – staffing, funding, software, labs etc. The Faculty of Science will be doing the largest amount of student recruitment across the college. The Research Office also stated a significant increase in research is planned and is being committed to at senior level within the college.

The panel also felt student campus life i.e. the connectivity, the chance to build networks and relations with other colleagues is a large part of future plans for research, postgraduate students. The Head of Science confirmed it is the intention to put the new research student in the heart of the campus buildings, with ongoing campus development. Being centrally part of the campus will help with peer support, student connectivity, and discussion of ideas from inter-disciplinary areas. Also the issue of time for research or to supervise research students is sector wide for Institutes of Technology. During the summer where supervision is still needed there is increasing resourcing going towards this now.

Supervision Requirements

Supervision is currently 2 hours per postgraduate to a lecturer, with up to 6 students per lecturer. It can also be difficult for younger lecturers to get into research, or they have busy families. The idea of a co-supervisor or mentor is recommended. The Faculty of Science agreed and confirmed more avenues for this will be worked on along with the existing Scholarship, President's Bursary Award and the current Co-Supervision.

Forty new Springboard course places have been funded for Masters level courses at IT Sligo, which is a great bonus to the Faculty of Science at I.T. Sligo and the work being done. These Springboard courses will go towards the TU metrics, but overall 9 new lecturing posts will need to be filled. The Faculty of Science asked the panel members to emphasise to IT Sligo the essential need of all the resourcing needed especially the lecturing posts, where possibly up to 60 new students will be starting by the next academic year 2019/2020. It is noted that currently and ongoing the Faculty of Science does the most research of all the Faculties across I.T. Sligo.

With the approval for these new Masters programmes did I.T. Sligo show that they had the staff research levels to accommodate and teach these new student places? The transition from an Institute of Technology to a Technological University is ongoing, meeting new levels for staff to show work on research will take adjusting to. The senior management and HR department at I.T. Sligo is well aware of the need for the new staff and the need to get 9 new Assistant Lecturers in place, if not enough assistant lecturers can be recruited, then the applications will go out again to recruit at Lecturer level.

There is a greater than normal number of people needed, they are also required to be experienced and qualified to a very high level, the short time scale of offering the courses by September 2019 will cause a bottle neck. Staff need to come into the roles already trained and with good experience, it won't help if the new staff are only paid starting at the bottom of the assistant lecturer scale, the case needs to be made staff should be paid at a good level of the scale reflecting their experience. This applied for lecturing staff and lab

technicians, as some staff have left to work in the private sector where their qualifications are rewarded with a more generous salary, I.T. Sligo needs to be aware this is something they will face - to keep and attract staff. Recruiting for Lecturing roles and then Assistant Lecturers is a critical point. Also the need for equipment is going to be a significant part of the budget.

Structured Masters – with Springboard

The balance of the 90 credits is:

Project and Thesis = 60 credits

Taught Modules = 30 credits

Observations:

A number of new Masters Programmes are being rolled out across the college. Forty Springboard places are already confirmed and need students to apply for them, the critical issue is staffing recruitment.

There are PG Diplomas built into some of the Masters programmes to allow for exit awards and for students to study for a shorter period of time. Also with the new Research Masters programmes there are modules that can be used for the Structured Taught Masters programme.

There are modules that help students to conduct their research. There is a training course or module to help staff be supervisors and it suggested this should become mandatory.

A graduate support and recruitment office is going to be recruited as well.

The Research Office confirmed that I.T. Sligo is well aware of the importance of research and ethics to maintain research integrity and continually working on this. An Ethics Committee has also been formed within the college. While I.T. Sligo has also gained Epigeum status in terms of research skills.

The Faculty of Science and TU Transition

The Faculty of Science at I.T. Sligo is conducting 70% of the research within the college. The modules being taught can be delivered online across all Masters courses.

The attrition and retention of students was discussed, and it was asked by the panel if any resources are in place such as:

*   Mentoring

*   Advisory resource such as Graduate Research communication – secondary area specific expertise as well as the student's supervisor.

The Faculty of Science agreed a more formalised support and reporting structure needs to be put in place, this would help students to feel recognised and part of the campus and student community. Also a better reporting and monitoring system will be setup, part of which will be twice yearly supervisors meetings. A Student Training Needs Analysis Plan will also be agreed for each student that begins a postgraduate course. The HoD in Science would be reassured and encouraged to have these supports and a communication support role would be useful for reporting and monitoring for the academic staff. This would help address clear issues that postgraduate students feel about a lack of support, communication and receiving help.

Views of Current Lecturers

The efforts of changing to a Technological University have been a major attraction to joining I.T. Sligo. Across the college as a whole the Research Office was small so funding and applications seemed to get processed and acted upon quickly. One member of staff began work at I.T. Sligo, as one funding round just started and another was coming up, so that lecturer's application for capital funding went through quickly.

Another lecturer found that having worked in industry it left a gap in their CV in terms of publishing, research and supervision. Teaching leaves little time for research with some students even coming from labs doing their research to find the lecturer in a theory class. Finding time can be difficult but the bursary award has helped to take steps towards research. As an early stage researcher it can be important to get and show you have funding when competing or collaborating in the EU.

Being an English speaking in the EU can be an advantage and appreciated on projects with the UK possibly leaving the EU.

Other staff stated that coming from other sectors of third level education there's a greater focus on research with only a little teaching, I.T. Sligo needs its lecturing staff to do more teaching. So it can feel as though research is a hobby.

Lecturers feel I.T. Sligo needs a larger research office to offer support in writing applications etc.

The administrative stages are too many and too complex for funding applications and working out budgets, for all the people staff feel they need to speak to and get approval from. If the stages could be reduced and simplified, so the sooner people can act and begin research and ordering and going to conferences the better. It allows the staff time to think research, share ideas, be more creative etc. Even to allow staff their own access to the ordering system to administer their budgets, but administrative support to process orders would be needed. At the moment it's mandatory to have supervision meetings and some lecturers felt this isn't the best way to carry out research. As research can be a fluid, creative process too and lecturers have greater academic freedom. The many small procedural steps need ironing out first before I.T. Sligo begins larger ambitious projects.

The Research Office said the tendering process is likely get more delayed to new procedures for quotes and amounts paid to companies by all departments across an organisation, rather than the previous method of amounts per order within each organisational department. More gathering of quotes and appraising is going to be necessary.

Time can also be short to apply for meeting at I.T. Sligo level, for small budget and grants awarded, it can take a long time compared to University level research activity and funding procedures. This all has a knock on

effect to budgets, time, research that can conducted, applications, collaborations, networking, attending conferences, supervision etc.

A dedicated department within the Research Office to monitor all research areas for new and regular funding, grant and budget applications. This would allow staff to apply and act more efficiently and nimbly. Lecturers also said it would be good to have a dedicated person in the Research Office to help coach staff in writing these applications. The panel agreed they would make a strong recommendation of this point.

More dedicated space for research in the college is essential, so with the approval given to more campus redevelopment and refurbishment it's hoped more space will be available then.

Can the arrangement also be put in place that postgraduate students can be allowed to cover more teaching within the Faculty of Science for one off occasions as they may arise in a semester. This would allow lecturers the flexibility to attend conference/workshops and network, where currently lectures can rarely be covered and these research opportunities can be missed. The idea was also put forward of a small fund to be allotted from budgets to allow for travel and accommodation at these types of events, and make these bookings. The Panel agreed this would be a strong recommendation.

Part 7   Meeting with Student Representatives

Meeting with Student Representatives on May 10th

The Chairperson gave an overview of the purpose of the programmatic Review. He stated the panel would like to find out about students involvement in the process, how they are supported by the Institute and what influenced their decision to come to IT Sligo. List of students is provided in Appendix vi.

Chair introduced panel and the student group introduced themselves

Q What is one thing you like and the one issue you had in IT Sligo?

A Co supervised with Queens and this gave good linkages. Aloes collaboration in UK

Little bits of concern, no outstanding issues.

A Research of interest. Supportive lab group

No major issues.

A Satisfied. Chance to learn a lot – Including English. Supported by supervisors and colleagues

A Practical course

2nd semester had 12-week placement. Workload in 1st Semester 10 weeks too much with exams and placement

A Placement beneficial – got job from it

A Student facilitated by staff if not find placement

A Supported – Supervised by multiple researchers, Useful to have large group.

Issue – Lack of lab space – not slowed down – have storage – working in teaching labs outside teaching. Working around. More inconvenient. Made do with.

Q Peer mentoring programme

A Heard of it but not participated

Q Did you avail of academic writing and maths supports?

R Heard of but did not use. Have accessed English classes

Q What sort of help do you get presentations, conferences, etc.

A One paper – good journal – specific to area – Presented at international conferences.

Q Funding & sponsorship

A Presidents Bursary – Stipend – applied for but was talking to supervisor before.

EPA project – Funding available

Q do you have one supervisor

A Some have one, some have more than one

Joined by 2 new students

Q What is one thing you like and the one issue you had in IT Sligo?

A The fact course lets you branch out into areas like Science teaching.

Q Did you know about options beforehand.

A yes

A broad nature of course with different sciences

A Working on accreditation. Accreditation – To register after 2 years work as well. Not a protected title. Has taken a bit of time – takes 3 years for nutrition – could have done dietician sooner.

A Struggle to get some feedback – large number in-group. Shouldn't have to fight for it? This happened only in one case. We cannot improve performance if you do not know where you went wrong

Q Were you supported in placement

A Yes working in college

Q How would feedback be given

A Online and face to face- meetings. Feedback not positive.

Q Are grades published on Moodle

A Yes.

4th year only grades go to final mark

Q Continuous assessment – is this even throughout year?

A On placement – 100% CA – Just this one semester.

Q Continuous assessment and terminal exams

A Well-spaced out. Exams after Christmas were an issue.

Lot of CA in 10 weeks, but in bursts. Given assignments early and got assessment matrix

Q Is there supervision of postgrads during summer

A No issues, not in fulltime in but there 3 days per week. Supervisor contactable during summer. Some PG has had problem. Technical support not available during summer.

Q Is technical support available during year.

A Some good. No technical staff for PG. Could be busy.

Q Is there a queuing system for technical support.

A No but is there for IT Services. Normally quite good. Online service for IT Services.

Part 8   Findings and Recommendations

The Panel recommends the revalidation of the Programmes and Level 9 Research that were presented to it for 5 years subject to the conditions and recommendations listed below.

Faculty of Science

Commendations

- The panel highly commend the Faculty for their enthusiastic engagement with this process.

- We recognise the significant effort and progress made in advancing all aspects of Faculty Operation and Development and in meeting the Institute's Strategic Goals and drive towards achieving TU.

- Specifically, we commend the team for their development and delivery of new programmes online and within sectoral groups, and their care and attention to their students well-being through various support initiatives.

- We wish to commend staff in their efforts to deliver high quality teaching and engaging in research activities.

Recommendations

- In light of developments to consider succession planning especially round developing and support new leaders and managers

- Special Regulations should be harmonised across Faculty.

- Develop cross-faculty collaboration

Conditions
None

Department of Environmental Science.

Commendations

- In the context of Global Climate Change and species loss, the panel recognises the importance of the new programme in Environmental Science with Ecology in the achievement of a sustainable future.

Recommendations

- The Panel recommends the revalidation of all programmes and modules presented by the Department of Environmental Science, with consideration to the following:

- It is strongly recommended that additional and appropriate resource allocation is provided to the Department of Environmental Science to meet the requirements of core practical activity. In particular, for delivery of field work which is required to meet the learning outcomes of programmes- specifically relating to field work, excavation and field studies.

- To support the Green campus initiative, it is recommended that all future reviews should be carried out on a paperless basis.

- A Commonality Matrix needs to be developed and a review of modules where module titles are the same but where it is not possible to deliver in common across programmes. Cross departmental and cross faculty commonalities should be investigated to clarify and broaden the learning available to the students and provide to synergies across the institute. A potential example of this is Archaeology in the Planning Process between the Faculties of Science and Engineering.

- In order to encourage and support staff to participate in research and complete PhD studies, a policy should be put in place to provide a mechanism to buy out teaching hours in order to facilitate quality based delivery of teaching and successful participation / completion of research activities.

- Priority should be given to the establishment of the Research Support Officer (and office) role to support the funding application process. A formal Mentoring system should be developed to assist early career researchers.

- Training in Research Ethics and Integrity should be included in all training programmes delivered to postgraduate students and research active staff.

- Additional Resources need to be provided to support staff for networking and conference attendance.

- A review of feedback mechanisms between staff and the Head of Department should be carried out in order to allow for timely identification of training needs and resource allocation.

- A review of access to the Agresso system by researchers to enable budget interrogation and submission of requests should be carried out (i.e. read-only access of budget value and spending activities).

- Recommend the appointment of a Centralised Work Placement office to provide administrative support to the academic staff members involved in work-placement. We consider it essential that the Point of Contact Links between Academics and industry

representatives be maintained. Ensure adequate resources are provided for industrial visits by staff.

- We strongly suggest that the Institute reviews the 30% limit to changes for future revalidation processes including programmatic review.

- Appropriate training in how to complete module and programme definition forms on Module Manager should be provided including practical examples.

- As the Programme Documentation including the module descriptors constitute a legal document, great care needs to be taken to ensure all elements are correct and accurate at final publication.

- In all programme documentation a detailed review and update is required to ensure completion and consistency in terms of Programme and Module Aims, Objectives, Learning Outcomes, Assessment Strategy, Teaching and Learning Strategy, Repeat Assessment Strategy and current reading lists. Particular attention should also be paid to the use of correct verbiage for Programme and Module Learning Outcomes at the appropriate NQF stage. The appropriate number of learning outcomes per credit of modules, should also be reviewed across the programmes.

- A consistent format of indicative syllabus needs to be adopted so that it is sufficiently descriptive of the required topics and appropriate to credit weighting. An indicative list of lectures should be included.

- In relation to particular module reviews the following is recommended:

  o MATH06070 – Mathematics for Science 2 – The Final Exam should be reduced from 70% to 50%.

  o PROJ08018 and PROJ08019 need to be reviewed and amended as a single module delivered over the academic year rather than semesterised, to better reflect the operational delivery of this module and correct grade weight and assessment timeline.

  o A review of all modules to ensure the assessment schedule is commensurate with the module credit weighting, for example, CHEM06037 – Introductory Chemistry 1, the theory assessment schedule of three MCQs is excessive.

  o A review of the credit weighting and duration of the work placement modules across the department is required, to eliminate inconsistency with assessment weighing and to appropriately value the student learning experience. For example, the four-week placement in Archaeology should move to a work-based learning mode delivered during term time. This will enable greater flexibility of staff to address other departmental priorities and research. Greater emphasis in a work-based learning model in Archaeology, should have greater variety and depth of experience. As part of

the assessment of this module, a work-based portfolio should be prepared by the students as reflective evidence.

- It is recommended that a schedule of feedback to students on their CA performance is prepared for each module.

- A consideration should be made to ensure adequate resources are provided to staff for delivery of online programmes.

Conditions
None

Department of Life Sciences.

- Bachelor of Science in Biomedical Science – Award of a Higher Certificate L6 in Biomedical Studies as an exit award approved– PLO need developed.

- Level 9 Postgraduate Certificate in Quality Analytics for Biopharmaceuticals   Change in title to "Bioanalytical techniques" Approved

- Level 6 Certificate in Science in Cleanroom Manufacturing   Title change for 'L6 Cert. in Cleanroom Manufacturing' to "Aseptic Operations" Approved.

Commendations

- The panel commended the team with regards to programme developments as recognised by the External examiners in response to annual feedback.

- The panel commended the department with regards to its internal and external research profile development.

- Commendation that the team are working together on teaching approaches and how this relates to assessment including the terminal exam/CA weightings.

- The team are to be commended on their efforts to ensure the student/graduate preparedness for the workplace and the use of reflection within the learning process.

- The team are to be commended with the introduction of the change to have the General Science students extend their choice after 1st year to a wider range of programmes. This will impact on student retention and progression and offers elements of choice.

- The panel commends the team on the Incorporation of New Legislation into the evolving curriculum of Med Tech Reg Affairs, thereby empowering students and enhancing employability.

- The panel commended the team on increasing the chemistry content of the Pharmaceutical science to allow student to apply for teaching council recognition to teach chemistry to leaving cert level.

- The panel commends the department taking a strategic approach to align Masters to meet industry needs and align with TU Criteria.

- The staff are commended on the MIPS QP Programme being included on the on QP HPRA list. Noting it is the only such programme not coming from a school of pharmacy.

- The panel applauded the established collaborative links with NIRBT and IMA, which are important to ensure the teams and programme are kept up to date.

- The panel commended the interaction of the team with local SME's to develop close relationship and Interaction.

Recommendations

- Panel support development of proposed new programmes by the department (Including areas of Green Chemistry and Analytical Science) and recommend that the Institute resources this.

- The Institute should work with department to ensure sufficient technical support is in place to allow them to grow to meet their targets

- The team continues to review the weightings for Terminal Exam/CA to ensure the terminal exam has an appropriate profile

- The documentation should be reviewed to ensure accuracy of data relates programmes and modules.

- The team should continue to review the mechanism to provide feedback including collection of evidence of feedback and the design of assessment with regard how it could facilitate feedback.

- It was noted in Faculty planning that benchmarking of ISSE is required and it is recommended that a more formal mechanism (e.g. CRM) to capture interactions is considered.

- Recommended that the team consider the name of all its modules and programmes to ensure they reflect to a reader/employer the nature of the content/skills (for example Forensic and analytical science).

Conditions
None

Department of Health and Nutritional Sciences

Commendations

- The panel highly commend the Departmental team for their enthusiastic engagement with this process.

- The panel commended the Departmental team with regards to programme developments

- The team are to be commended on their efforts to ensure the student/graduate preparedness for the workplace

- The panel commends the department taking a strategic approach to develop Masters to meet proven need and align with TU Criteria.

- The panel commended the interaction of the team with organisations in the area to develop close relationship and Interaction.

- The panel commended the department on their work in developing modules very much responsive to recent developments and emerging needs. E.g. exercise prescription exercise for chronic illness.

- The panel commended the fact that students came out with associated qualifications in nutrition and fitness from the Health and nutrition programme, alongside their honours degrees.

Recommendations

- Human Nutrition – commended the work done so far on getting accreditation with the Association of Nutrition for the Level 8 degree programme. Very important that this is completed and achieved.

- Recommend a level 7 combination of health promotion and nutrition with separate stream in year 4. This maybe in the forms of electives from the other degrees in this department. A recognised qualification in nutrition and fitness would give the Health promotion graduates more credibility considering exercise and nutrition are so central to promoting health and prevention of chronic illness. It would provide them with the evidence base from which to promote health.

- SAFETALK and ASSIST and Mental Health Promotion need to be highlighted as part of programmes along with other content specific to mental health promotion which may prove attractive to Mental Health practitioners.

- Maths support – keep under review

- Work placement – The panel note 2 lecturers responsible for work placement for 58 students in one programme. Needs to be meaningful placement incorporating site visits, taking into account student needs and employer needs. The panel suggested enhanced standards and policy on work placement, ensuring the workload involved in sourcing and supporting students on placement is acknowledged,

integrated in workload allocation and coordinated across the faculty to ensure no duplication in contacting employers.

- FE and international linkages need to be expanded

- Encourage current and further development of Minor Awards

- It was recommended the option to exit the programme with a level 6 qualification be made more explicit in promotional behaviour and marketing. This will highlight that there is an option which may make prospective students eligible to enter a level 8 programme in specialist health care related areas such as physio, occupational therapy and Dietetics.

- Further development of a research pillar in Health Sciences – acknowledging work to date, cognisance needs to be given to the fact that the public agencies such as HSE may not be as lucrative for research in this area than some of the private corporate companies yet such research invaluable.

- Inclusion of a unit on Self-Management Support for the Health Promotion course in line with the undergraduate curriculum for Health Behaviour Change for Health Professionals as well as the inclusion of the MECC which is well covered in the proposed programme.

- In Public Health and Health Promotion there is a need to reinforce public health especially round the scope of public health practice.

- Inclusion of content on "social prescribing" alongside the "exercise prescription" module that is already developed.

Conditions
None

Research

Commendations

None

Recommendations

- Student Survey – a high percentage felt they did not get feedback. There should be an annual Faculty Research review process that reviews student progress incorporating a mechanism by which the research team with a faculty/dept can evaluate student progress and give appropriate feedback. This could involve the student presenting their work.

- The institute needs place resource allocation in Faculty Research as a priority to allow the faculty to sustain and grow its research activity in order achieve its ambitious TU targets. In particular, three areas need to be addressed in the immediate future.

    o Supervisory capacity needs to be increased to meet the imminent arrival of the large increase in master's student in September. In order to get experienced qualified staff through the recruitment process the institute needs to consider recruitment at the L grade. This will give immediate and long-term return in that experience would provide a higher ability to secure research funding.
    o Research support staff in the form of experienced research technical staff and administrative support (Grant application etc.) need to be put in place to support the current activities and growth. Research Technical staff are an additional support to research students, especially over the summer.
    o The institute needs to priorities the allocation of dedicated research space which will allow consolidation of the research PG community in a central location. As part of meeting this need an identifiable research institute should be established

- The faculty described a pilot that facilitated the immediate cover of teaching to allow staff to attend conference relevant to their research activity and CPD. This needs to be rolled out permanently with a sufficient additional budget to meet faculty need.

- PG Code of Practice and Ethics Procedure needs to be fully implemented

Conditions
None

Mr David Denieffe

Chairperson

Mr Colin McLean

VP Academic Affairs and Registrar

Appendix i: Agenda

Date/Time	Item	Room
19.30	Private meeting of the Panel: Discussion of documentation and identification of points for special consideration. Confirmation of the agenda. Chapter 5 of IT Sligo QA Manual Outlines scope.	Clayton Hotel
20:00	Panel dinner With Faculty Heads	Clayton Hotel

Day 1 May 9th

Date/Time	Item	Room
08:30-09:30	Private meeting of Panel	Institute Boardroom, IT Sligo
09:30-09:45	Meeting with President & Head of Faculty Strategic Plan, HEA Compact and TU	Institute Boardroom, IT Sligo
9.45 – 10.30	Meeting with Head of Faculty, Heads of Departments on Faculty Plan - Presentation by the Head of Faculty on a Faculty overview including student numbers; progression; International; Surveys; Staff profile; Faculty targets etc. Discussion on: - Faculty/Department Structure, and management & administrative structures - Academic Plan and Performance of the Faculty - Student throughput and student retention. - Research growth plans - Student support services - Pedagogical strategies - Staff compliment (academic, technical & administrative), deployment and development - Physical facilities	Institute Boardroom, IT Sligo
10.30 – 10.45	Coffee	Institute Boardroom, IT Sligo
10.45-12.30	Three separate meetings with each Head of Department and their Programme Leaders. - Discussion on overall programme performance since the last validation. - Approach to student feedback and survey. - Evaluation of the external environment affecting each programme and key inputs from survey of graduates/ - employers. - Summarised key changes to each programme and rationale. - Relevance to the strategic plan and Faculty plan. - Future programme plans and development.	Room: Institute Boardroom Dept. of Environmental Science (Note taker – Breege Fahy) Education Centre Boardroom Dept. of Life Science (Note taker – VP AA & Registrar) Room F1017 Dept. of Health and Nutritional Sciences (Note taker – Deirdre Collery) (Note taker- Deidre Collery)

12:30-13:30	Lunch	Institute Boardroom, IT Sligo

13:30-16:00	Programme Revalidation: (all staff)
	
	Breakout of Panel with Heads of Departments, Programme Chairs, all lecturing staff and industrial representatives:
	
	Entry points and student numbers
	Pass and retention analysis
	Graduate Numbers and employability, and links with employers
	Operation of programme quality system and programme monitoring reports (EAP-7 forms).
	Programme changes since 2013 Programmatic Review.
	Student, graduate and employer surveys
	External examiner reports
	
	New Programme design and proposed changes, and rationale leading to this.
	    - Programme Aims and Objectives
	    - Programme and module learning outcomes
	    - Curriculum.
	    - Delivery methodologies
	    - Access, transfer and progression.
	    - Work Placement
	    - Programme Assessment strategy and feedback
	
	Departmental Research
	Planned new programme development for the next five years.
		Room: Institute Boardroom
		Dept. of Environmental Science
		(Note taker – Breege Fahy)
		
		Education Centre Boardroom
		Dept. of Life Science
		(Note taker – VP AA & Registrar)
		
		Room F1017
		Dept. of Health and Nutritional Sciences
		(Note taker – Deirdre Collery)

16.00- 16.30	Note taker and Chairperson to record key decisions	Institute Boardroom, IT Sligo
16.30- 17.30	Private meeting of Panel/Coffee: break-out group work with note taker to have draft programme revalidation report to bring to the full Panel	Institute Boardroom, IT Sligo
17.00- 18.00	Tour of facilities	Faculty of Science
20:00	Panel dinner	Clayton Hotel

Day 2 May 10th

Date/Time	Item	Room
08.30- 09.00	Private meeting of Panel	Institute Boardroom, IT Sligo
09:00-9:45	Level 9 Research Practice Programme 30 – 60 ECTS (Vol 5 B)	B2214 (Note taker – Paul Walsh)
9:45-10:45	PG Masters and PhD by Research (Vol 5 a)	B2214 (Note taker – Paul Walsh)
09:00-10:45	Programme Revalidation continued: Breakout of Panel with Heads of Departments, Programme Chairs, all lecturing staff and industrial representatives: Continuation of previous days Programme Revalidation meeting:	Room: Institute Boardroom Dept. of Environmental Science (Note taker – Breege Fahy)

		Education Centre Boardroom Dept. of Life Science (Note taker – VP AA & Registrar) Room F1017 Dept. of Health and Nutritional Sciences (Note taker – Deirdre Collery)
10:45-11:15	Coffee Note taker and Chairperson to record key decisions	In meeting rooms (for PR team break out team)
11:15-12:15	Private meeting of Panel: break-out group work with note taker to have draft programme revalidation report to bring to the full Panel	Room: Institute Boardroom Dept. of Environmental Science (Note taker – Breege Fahy) Education Centre Boardroom Dept. of Life Science (Note taker – VP AA & Registrar) Room F1017 Dept. of Health and Nutritional Sciences (Note taker – Deirdre Collery)
12:15-13:15	Meet with Student Representatives and with external Stakeholders	Institute Boardroom, IT Sligo
13.15- 14.00	Lunch	Institute Boardroom, IT Sligo
14-00-14:30	Catch-up meeting with Head of Faculty, Heads of Departments, Programme Chairs (if required)	Institute Boardroom, IT Sligo
14-30-15:30	Private meeting of Panel to agree Findings including top line conditions and recommendations	Institute Boardroom, IT Sligo
15:30	Feedback to Faculty	Institute Boardroom, IT Sligo
16:00	Finish	

Appendix ii: Membership of Review Panel

The Panel of Assessors are:

Group 1: Department of Life Sciences

Title	Name	Surname	Role	Institution/Company
Professor	Neville	McClenaghan	VP GMIT (Biomedical)	GMIT
Dr	Paul	Tomkins	Head of Science (Pharma)	Retired
Dr	Donal	Coveney	CEO (Pharma)	TopChem Pharmaceuticals
Dr	Claire	McDonnell	Assistant Head of School, DIT (Forensic)	DIT
Ms	Geraldine	Gallagher	Biomedical	Sophia Quality Solutions
Dr	Ita	Kinahan	Forensic	State Laboratory

Group 2: Department of Environmental Science

Title	Name	Surname	Role	Institution/Company
Mr	Padraic	Larkin	Retired Director, EPA (Environmental/Agri)	EPA
Ms	Michelle	McKeon-Bennett	Head of Department (Environmental/Agri)	Limerick Institute of Technology
Dr	Victoria	Hogan	Programme leader (OSH)	NUI Galway
Ms	Catriona	Gannon	Health and Safety Manager (OSH)	Baxter, Castlebar
Mr	John	Cronin	Consultant Archaeologist (Archaeology)	John Cronin and Associates
Dr	Katharina	Becker	UCC (Archaeology)	UCC
Prof	James	Houghton	Emeritus Professor (Research)	NUI Galway
Ms	Emma	Black	Student representative	Education Officer, St Angela's

Group 3: Department of Health and Nutritional Sciences

Title	Name	Surname	Role	Institution/Company
Mr	David	Denieffe	Vice- President for Academic Affairs and Registrar	IT Carlow
Ms	Emma	Ball	Community Dietician Manager (Nutrition)	HSE West
Dr	Patsy	McSharry	Programme Director BNSc Nursing (Health Sciences)	St Angela's College , Sligo
Dr	Peter	Wright	Head of Public Health (Health Sciences)	HSE West

Appendix iii: List of documentation circulated to the Panel

1. Agenda
2. Quality Assurance Manual Institute of Technology Sligo
   Chapter 5 - IT Sligo QA Procedures
3. USB containing all programmes and their module descriptors

Appendix iv: Private meetings of the Panel

The panel held a private meeting on the evening of Wednesday 8th May.

Appendix v: List of Staff members who met the Panel

Akin Akande
Armstrong Eileen
Atkinson Roisin
Barrett John
Barrett Sharon
Beglane Fiona
Bird Jeremy
Bodeker MacDara
Bonsall James
Brennan James
Breen Ailish
Butler Mary
Byrne Dolores
Cadogan Aodhmar
Campion Eva
Collery Deirdre
Connaughton Noel
Considine Aideen
Costello Edel
Coyle Cait
Crowe Bill

Crummy John
Daly Stephen
Doherty Frances
Dermiki Maria
Doherty Margaret
Donlon Eimear
Dowd Marion
Doyle David
Dowling Geraldine
Duddy Ann Marie
Duignan Geraldine
Fahy Breege
Feeney Declan
Fowley Colin
Garvey Mary
Gillespie Eoin
Geraghty Ossian
Hamilton Paul
Handlakis Ioannis
Hannon Mary
Hehir Sarah
Heneghan Mary
Hoare Melissa
Joyce Oliver
Keaver Laura
Kenny Owen
Khan Umar

Lang Yvonne
Lucy Frances
McArdle Fiona
McCabe Anthony
Mc Callig Margaret
Mc Callion Maire
Mc Gourty Padraig
McGowan Ted
McGrath Blaithin
McLoone Margaret
Markley Shirley
Marsden Guy
Monaghan Ken
Moran Carmel
Moore Sam
Mulrooney Margaret
Murphy James
Nugent Rachel
O'Malley Edwenia
Partridge Tony
Patton Tom
Pillai Suresh
Regan Joanne
Read Chris
Rudden Lil
Savage Margaret
Shelly Declan

Sherlock Richard
Smyth Thomas
Stevens Victoria
Taylor Cian
Tiwari Uma
Tobin Kieran
Tonry Steve
Touzet Nicolas
Vale Anna
Uzhova Irina
Walsh Paul
Warren Orla
Youell Azura
Bartlett John (Research Office)

Appendix vi   List of Student Representatives who met the Panel

Students

Paul Higgins
Darren Roland
Ingrid McLoughlin
Seamus King
Anita Arauyos
Rachel Parkes
Eithne Davis
Leah Walsh
Helen Callaghan

1.0 Full Time Courses Department of Environmental Sciences

		Full Time Courses Department of Environmental Science	
	Level	Course	Summary of Changes
Agri-Food Science	8	Bachelor of Science (Hons) in Agri-Food Science (Ab initio)	No change in programme learning outcomes. Minor changes to modules.
	7	Bachelor of Science in Agri-Food Science (Ab initio)	No change in programme learning outcomes. Minor changes to modules.
	7	Bachelor of Science in Agri-Food Science (Embedded award at level 7 of the level 8 programme)	No change in programme learning outcomes. Minor changes to modules.
Applied Archaeology	8	Bachelor of Science (Hons) in Applied Archaeology (Ab initio)	No change in programme learning outcomes. Semester order of some modules has changed. Change in name of several modules. Summer work placement.
	8	Bachelor of Science (Hons) in Applied Archaeology (Add-on)	No change in programme learning outcomes. Semester order of some modules has changed. Change in name of several modules. Summer work placement.
	7	Bachelor of Science in Applied Archaeology (Embedded Award of Level 7)	No change in programme learning outcomes. Semester order of some modules has changed. Change in name of several modules.
	7	Bachelor of Science in Applied Archaeology	No change in programme learning outcomes. Semester order of some modules has changed. Change in name of several modules.
	6	Higher Certificate in Applied Archaeology (Embedded award at level 6 of the level 7 programme)	No change in programme learning outcomes. Semester order of some modules has changed. Change in name of one module.
	6	Higher Certificate in Applied Archaeology (Embedded award at level 6 of the level 8 programme)	No change in programme learning outcomes. Semester order of some modules has changed. Change in name of one module.
	6	Higher Certificate in Applied Archaeology	No change in programme learning outcomes. Semester order of some modules has changed. Change in name of one module.
Environmental Science	8	Bachelor of Science (Hons) in Environmental Science (Ab initio)	No change in programme learning outcomes. Minor changes to modules.

	8	Bachelor of Science (Hons) in Environmental Science (Add-on)	No change in programme learning outcomes. Minor changes to modules.
	7	Bachelor of Science in Environmental Protection (Embedded Award of Level 7)	No change in programme learning outcomes. Minor changes to modules.
	7	Bachelor of Science in Environmental Protection	No change in programme learning outcomes. Minor changes to modules.
	7	Bachelor of Science in Environmental Protection (Add-on)	No change in programme learning outcomes. Minor changes to modules.
Science	8	Bachelor of Science (Honours)	No change in programme learning outcomes. Minor changes to modules.
	7	Bachelor of Science	No change in programme learning outcomes. Minor changes to modules.
	6	Higher Certificate in Science	No change in programme learning outcomes. Minor changes to modules.
Occupational Safety and Health	8	Bachelor of Science (Hons) in Occupational Safety and Health (Ab initio)	No change in programme learning outcomes. Changes to modules in alignment with industry needs with a focus on training skills. Reallocation of some hours to develop practical skills.
	8	Bachelor of Science (Hons) in Occupational Safety and Health (Add-on)	No change in programme learning outcomes. Some changes to modules and module titles in line with industry needs with a focus on training skills.
	7	Bachelor of Science in Occupational Safety and Health	No change in programme learning outcomes. Changes to modules and module titles in alignment with industry needs with a focus on training skills. Reallocation of some hours to develop practical skills.
	7	Bachelor of Science in Occupational Safety and Health (Embedded Award of level 7)	No change in programme learning outcomes. Changes to modules and module titles in alignment with industry needs with a focus on training skills. Reallocation of some hours to develop practical skills.
	7	Bachelor of Science in Occupational Safety and Health (Add-on)	No change in programme learning outcomes. Some changes to module and module titles in line with industry needs.

2.0 Part Time Programmes Department of Environmental Sciences

	Level	Course	Summary of Changes
Online and Distance Courses Department of Environmental Science			

Environmental Science	9	Master of Science in Water Services Management	No change. 2018 programme
	9	Postgraduate Diploma in Water Services Management	No change. 2018 programme
	9	Postgraduate Certificate in Water Services Management	No change. 2018 programme.
	9	Postgraduate Certificate in Environmental Management	No change. 2018 programme.
	9	Master of Science in Environmental Protection	No change.
	9	Postgraduate Diploma in Environmental Protection	No change in programme learning outcomes. Rearrangement of 2 modules with minor changes. Updating of regulations.
	9	Postgraduate Certificate in Food Regulatory Affairs	No change in programme learning outcomes. Updating of regulations. Minor changes.
	8	Bachelor of Science (Hons) in Environmental Management (Add-on)	No change in programme learning outcomes. Change of one module.
	7	Bachelor of Science in Environmental Management (Add-on)	No change in programme learning outcomes. Minor update of content in some modules.
	6	Higher Certificate in Environmental Management	Not running - remove
	6	Certificate in Science in Irish Wild Flower Identification	No changes
	6	Certificate in Science in Compost Facility Operation	No changes
Safety and Health	9	Master of Science in Environmental Health and Safety Management	No changes 2018 programme
	9	Postgraduate Diploma in Environmental Health and Safety Management	No changes 2018 programme
	8	Bachelor of Science Honours in Occupational Safety and Health (Add-on)	No change in programme learning outcomes. Minor changes to modules and introduction of a new module.
	7	Bachelor of Science in Occupational Safety and Health (Add-on)	No change in programme learning outcomes. Minor changes to some modules.

	6	Higher Certificate in Occupational Safety and Health	No change in programme learning outcomes. Minor changes to modules and module title change.
	6	Certificate in Occupational Safety and Health	No changes
	6	Certificate in Health and Safety Representation	No changes

3.0 Full Time Courses Department of Life Sciences

	Level	Course	Summary of Changes
Biomedical Science	8	Bachelor of Science (Hons) in Medical Biotechnology (Ab initio)	Minor changes to all modules to update. Year 3-Protein Biotechnology module moving from Semester 5 to Semester 6. As a result Research Development and Communication is moving from Semester 6 to Semester 5 to accommodate this move (direct swap). Programme Learning outcomes modified in light of changes **Changes are less that 30%.**
	8	Bachelor of Science (Hons) in Medical Biotechnology (Add-on)	Minor changes to all modules to update. **Changes are less that 30%.**
	7	Bachelor of Science in Biomedical Science (Embedded Award at level 7)	Minor changes to all modules to update. Year 3-Protein Biotechnology module moving from Semester 5 to Semester 6. As a result Research Development and Communication is moving from Semester 6 to Semester 5 to accommodate this move (direct swap). Programme Learning outcomes modified in light of changes **Changes are less that 30%.**
	7	Bachelor of Science in Biomedical Science	Minor changes to all modules to update. Year 3-Protein Biotechnology module moving from Semester 5 to Semester 6. As a result Research Development and Communication is moving from Semester 6 to Semester 5 to accommodate this move (direct swap). Programme Learning outcomes modified in light of changes

			<u>Changes are less that 30%.</u>	
	6	Higher Certificate L6 in Biomedical Studies.	Award of a Higher Certificate L6 in Biomedical Studies as an exit award approved– PLO need developed.	
	9	Master of Science Bioprocessing	No Change	
	9	Postgraduate Diploma in Bioprocessing	No Change	
Forensic Science	8	Bachelor of Science (Hons) in Forensic Investigation and Analysis (Ab initio)	Integration of revisions to Forensic Science Society (FSI) component standard for Interpretation, Evaluation and Presentation of Evidence (IEPE) into programme modules. Module FORS0701 (moved to Semester 8 and newly titled Evidence Evaluation for Court) has exchanged semesters with module CHEM08006 (Advanced Chemistry, now moved to semester 6). Revised module titles to better reflect content for following modules: FORS06006 (semester 3); ANLY06001 (semester 3); COMP07146 (semester 4); FORS0701(Semester 8). Minor changes and updating of modules including module titles. Changes to programme is much less than 30%. **The statement** 'For selected activities some students will be required to be Garda vetted by ITSligo' is added to the core schedule	

8	Bachelor of Science (Hons) in Forensic Investigation and Analysis (Add-on)	Integration of revisions to Forensic Science Society (FSI) component standard for Interpretation, Evaluation and Presentation of Evidence (IEPE) into programme modules. Module FORS0701 (newly titled Evidence Evaluation for Court) replaces module CHEM08006 (Advanced Chemistry) Minor changes and updating of modules including module titles. Changes to programme is much less than 30%.

				The statement 'For selected activities some students will be required to be Garda vetted by ITSligo' is added to the core schedule
	7		Bachelor of Science in Forensic Investigation and Analysis (Embedded Award of level 7)	Integration of revisions to Forensic Science Society (FSI) component standard for Interpretation, Evaluation and Presentation of Evidence (IEPE) into programme modules.

Module FORS0701 is removed and replaced with module CHEM08006 (Advanced Chemistry).

Revised module titles to better reflect content for following modules: FORS06006 (semester 3); ANLY06001 (semester 3); COMP07146 (semester 4).

Minor changes and updating of modules including module titles. Changes to programme is much less than 30%.

The statement 'For selected activities some students will be required to be Garda vetted by ITSligo' is added to the core schedule |
| | 7 | | Bachelor of Science in Forensic Investigation and Analysis | Integration of revisions to Forensic Science Society (FSI) component standard for Interpretation, Evaluation and Presentation of Evidence (IEPE) into programme modules.

Module FORS0701 is removed and replaced with module CHEM08006 (Advanced Chemistry).

Revised module titles to better reflect content for following modules: FORS06006 (semester 3); ANLY06001 (semester 3); COMP07146 (semester 4).

Minor changes and updating of modules including module titles. Changes to programme is much less than 30%.

The statement 'For selected activities some students will be required to be Garda vetted by ITSligo' is added to the core schedule |

	6	Higher National Certificate in Analytical Science (Embedded Award of level 6)	Integration of revisions to Forensic Science Society (FSI) component standard for Interpretation, Evaluation and Presentation of Evidence (IEPE) into programme modules. Revised module titles to better reflect content for following modules: FORS06006 (semester 3); ANLY06001 (semester 3); COMP07146 (semester 4);. Minor changes and updating of modules including module titles. Changes to programme is much less than 30%. The statement 'For selected activities some students will be required to be Garda vetted by ITSligo' is added to the core schedule
Pharmaceutical Science with Drug Development	8	Bachelor of Science (Hons) in Pharmaceutical Science with drug development (Ab initio)	Increase in chemistry content such that graduates will be in a position to apply to Teaching Council for eligibility to teach Chemistry to Leaving Cert level on graduation with L8. 15 Credit modules have been split into component modules which enhances opportunities for students progression.
	8	Bachelor of Science (Hons) in Pharmaceutical Science with drug development (Add-on)	No changes
	7	Bachelor of Science in Pharmaceutical Science with drug development (Embedded Award at level 7)	Increase in chemistry content such that graduates will be in a position to apply to Teaching Council for eligibility to teach Chemistry to Leaving Cert level on graduation with L8. 15 Credit modules have been split into component modules which enhances opportunities for students progression.
	7	Bachelor of Science in Pharmaceutical Science with drug development	Increase in chemistry content such that graduates will be in a position to apply to Teaching Council for eligibility to teach Chemistry to Leaving Cert level on graduation with L8. 15 Credit modules have been split into component modules which enhances opportunities for students progression.
	6	Higher Certificate in Pharmaceutical Science (embedded award at Level 6)	Increase in chemistry content.

4.0 Part Time Courses Department of Life Sciences

Online and Distance Courses Department of Life Science			
Title	Level	Course	Summary of Changes
Pharmaceutical and Biopharmaceutical Science	9	Master of Science in Medical Technology Regulatory Affairs	Minor changes to some modules to update. Incorporation of new legislation. Programme Learning outcomes modified in light of changes **Changes are less that 30%.**
	9	Master of Science in Industrial Pharmaceutical Science	
	9	Master of Science in Biopharmaceutical Science	Minor changes to all modules to update. Biocontamination module moving to semester 4 from semester 1 and Research methods moving to semester 1. Programme Learning outcomes modified in light of changes **Changes are less that 30%.** **New programme also under development in this area via EAP1**
	9	Postgraduate Diploma in Medical Technology Regulatory Affairs	Minor changes to some modules to update. Incorporation of new legislation. Programme Learning outcomes modified in light of changes **Changes are less that 30%.**
	9	Postgraduate Diploma in Pharmaceutical Regulatory Affairs	
	9	Postgraduate Diploma in Biopharmaceutical Science	Minor changes to all modules to update. Biocontamination module moving to semester 4 from semester 1 and Research methods moving to semester 1. Programme Learning outcomes modified in light of changes **Changes are less that 30%.** **New programme also under development in this area via EAP1**
	9	Postgraduate Certificate in Biopharmaceutical Science	Minor changes to all modules to update. Biocontamination module moving to semester 4 from semester 1 and Research methods moving to semester 1.

				Programme Learning outcomes modified in light of changes Changes are less that 30%. New programme also under development in this area via EAP1
		9	Postgraduate Certificate in Quality Analytics for Bioanalytical techniques	Change in title to "Bioanalytical techniques" required from Biopharmaceuticals.
		9	Postgraduate Certificate in Principles of Cell Biology and Biotechnology	No changes
		8	Bachelor of Science (Hons) in Applied Medical Sciences (Joint Ulster & IT Sligo Award)	No changes
		8	Bachelor of Science (Hons) in Biomedical Sciences (Life Sciences) (Ulster Award)	No changes
		8	Bachelor of Science (Hons) in Biomedical and Bio-industrial Sciences (IT Sligo Award)	No changes
		8	Bachelor of Science (Hons) in Biopharmaceutical Science (Add-on)	No changes
		8	Bachelor of Science (Hons) in Pharmaceutical Science with drug development (Add-on)	No changes
		8	Certificate in Pharmaceutical Science and Management	No changes
		8	Certificate in Science in Biopharmaceutical Science L8	No changes
		8	Certificate in Medical Technology Regulatory Affairs and Quality	No changes
		8	Certificate in Science in Bioprocessing Technologies	No changes
		8	Certificate in Science in Biopharmaceutical Processing L8	No changes
		8	Higher Diploma in Medical Technology Regulatory Affairs and Quality	No changes
		7	Bachelor of Science in	No changes

		Pharmaceutical Science	
7	Bachelor of Science in Biopharmaceutical Science L7	Change all modules to 50:50 FE/CA versus current 60:40 ratio. Updates to modules; <30%
7	Certificate in Science in Bioprocess Engineering L7	Change all modules to 50:50 FE/CA versus current 60:40 ratio. Updates to modules; <30%
7	Certificate in Science in Biopharmaceutical Processing	Change all modules to 50:50 FE/CA versus current 60:40 ratio. Updates to modules; <30%
7	Certificate in Science in Bio Analytical Techniques	No changes
7	Certificate in Science in Aseptic Processing	No changes
7	Certificate in Science in Biopharmaceutical operations	No changes
7	Certificate in Science n Pharmaceutical Processing	No changes
7	Bachelor of Science, Science without Borders	No changes
6	Higher Certificate in Good Manufacturing Practice (GMP)	No changes
6	Certificate in Science in Aseptic Operations	Title change for 'L6 Cert. in Cleanroom Manufacturing' to "Aseptic Operations"
6	Certificate in Science in Biopharmaceutical Processing	No changes
6	Certificate in Accredited Company Training	No changes
6	Certificate in Science in Pharmaceutical Processing	No changes
6	Certificate in Science and Technology	No changes
6	Certificate in Science in Bio Analytical Techniques	No changes
6	Certificate in Science in Sterile Operations	No changes
6	Certificate in Science Biopharmaceutical Operations	No changes

5.0 Dept of Health and Nutritional Sciences

Title	Level	Course	Summary of Changes
Health Science	8	Bachelor of Science (Hons) in Health Science and Physical Activity	No change in programme learning outcomes. Changes to number of modules in physical activity. Changes are <20%.
	8	Bachelor of Science (Hons) in Public Health and Health Promotion (Add-on)	No change in programme learning outcomes. Minor changes to modules and some changes to module titles to ensure more appropriate terminology for the sector.
	7	Bachelor of Science in Health Science and Physiology	No change in programme learning outcomes. Minor changes to modules and some changes to module titles to ensure more appropriate terminology for the sector.
Human Nutrition	8	Bachelor of Science (Hons) in Human Nutrition (Ab initio)	No change in programme learning outcomes. Minor changes to modules.
	8	Bachelor of Science (Hons) in Human Nutrition (Add-on)	No change in programme learning outcomes. Minor changes to modules.
	7	Bachelor of Science in Human Nutrition (Embedded Award of level 7)	No change in programme learning outcomes. Minor changes to modules.
	7	Bachelor of Science in Human Nutrition	No change in programme learning outcomes. Minor changes to modules.

6.0   Research Programmes

Research			
	Level	Course	Summary of Changes
All Departments	9	Master of Science by Research (including six 10 credit modules)	

		Certificate in Research Practice (Level 9 – 30	

		Credits)	
		Diploma in Research Practice (Level 9 - 60 Credits)	