GMIT

INSTITIÚID TEICNEOLAÍOCHTA NA GAILLIMHE-MAIGH EO
GALWAY-MAYO INSTITUTE OF TECHNOLOGY

Report of External Peer Review Group for the Programmatic Review of:

Named Award:	Bachelor of Science, Bachelor of Science (Hons), Higher Certificate
Programme Title(s):	Bachelor of Science (Honours) Applied Biology and Biopharmaceutical Science L8 (4 Years) Bachelor of Science Applied Biology and Biopharmaceutical Science L7 (3 years) L8 (+1 year); HC in Science in GMP & Technology (p/t) L6; BSc in Pharmaceutical Technology (p/t) L7; BSc (Hons) in Applied Biopharmaceutical & Healthcare Science (p/t) L8
Exit Award(s):	Higher Certificate in Science in Applied Biology and Biopharmaceutical Science (Level 6)
Award Type:	Higher Certificate, Degree and Honours Degree
Award Class:	Major
NFQ Level:	Level 6, Level 7 and Level 8
ECTS / ACCS Credits:	180, 240
Location:	Galway
Minor Award(s):	None

Panel Members

Name	Position	Organisation
Dr Michael Hall	Chairperson	IT Tralee
Mary Rogers	Secretary	GMIT
Dr Jeremy Bird	IOT Member	IT Sligo
Prof John Corish	University Member	TCD
Geraldine Gallagher	Professional Practitioner	Sophia Solutions
JJ Hancock	Institute Graduate	

Programme Board Team

Seamus Lennon	Trish O'Connell
Jean Hughes	Declan Maher
Des Foley	Una Quigley
Imelda Devilly McCann	Mary McMahon
Teresa Hanley	Colin Conway
Mary Ui Mhuircheartaigh	
Gay Keaveney	

1 Introduction

The following report to Academic Council is the report of the Expert Panel on its review, as part of the Institute's Programmatic Review, of the Self-Evaluation Report and meetings with programme delivery teams in relation to the following programmes.

- BSc (Honours) Applied Biology and Biopharmaceutical Science L8,
- BSc Applied Biology and Biopharmaceutical Science L7
- HC in Science in GMP & Technology (p/t) L6; BSc in Pharmaceutical Technology (p/t) L7
- BSc (Hons) in Applied Biopharmaceutical & Healthcare Science (p/t) L8

The report is divided into the following sections:

- Background to Proposed Programme
- General Findings of the Validation Panel
- Programme-Level Findings
- Module-Level Findings

2 Background to Proposed Programme

See Programme Self Evaluation Report (SER) for more detailed information.

3 General Findings of the External Peer Review Group

Following its review of the Self-Evaluation Report and its meetings with the Department, the Programmatic Review Expert Review Panel has recommended the programme for revalidation.

Feedback from the panel was that the Self Evaluation document was well presented; there was excellent engagement with the panel and questions were well answered. The engagement with stakeholders and focus groups was also seen as a positive.

There appears to be good employability of the graduates of this programme and a good reputation in the industry. The coordination of the work placement was also seen as good.

Some recommendations were suggested and these will be specified later in the document. The Panel recommends in particular, that the SWOT analysis is revisited and that the Department establishes a strategy and implementation plan to address the challenges facing it, where the solution lies within its own remit.

Having considered the documentation provided and discussed it with the programme development team; the External Peer Review Group recommends the following:

- BSc (Honours) Applied Biology and Biopharmaceutical Science L8,
- BSc Applied Biology and Biopharmaceutical Science L7

- HC in Science in GMP & Technology (p/t) L6; BSc in Pharmaceutical Technology (p/t) L7
- BSc (Hons) in Applied Biopharmaceutical & Healthcare Science (p/t) L8

Place an x in the correct box.

Accredited for the next five academic years or until the next programmatic review, whichever occurs sooner	
Accredited subject to conditions and/or recommendations	X
Re-designed and re-submitted to the same External Peer Review Group after additional developmental work	
Not Accredited	

Note:
Approval is conditional on the submission of a revised programme document that takes account of the conditions and recommendations outlined below and a response document describing the actions of the Department to address the conditions and recommendations made by the External Peer Review Group (EPRG). In this report, the term Condition is used to indicate an action or amendment which in the view of the EPRG must be undertaken prior to the commencement of the programme. Conditions are mandatory if the programme is to be approved. The term Recommendation indicates an item to which the Programme Board should give serious consideration for implementation at an early stage and which should be the subject of on-going monitoring.

4 Programme-Level Findings
This section of the report addresses the following programme level considerations:
- Evidence of reflection by the programme board to include, where relevant evidence of collaboration and engagement with other programmes from a similar discipline area within GMIT
- Demand
- Award
- Entry requirements
- Access, transfer and progression
- Retention
- Standards and Outcomes
- Programme structure
- Learning and Teaching Strategies
- Assessment Strategy
- Resource requirements
- Research Activity
- Quality Assurance
- Internationalisation
- Professional Practice (Work Experience / Internship etc)

4.1 Reflection, including internal and external engagement

Consideration for the panel:	Is there evidence of reflection in the SER of how the programme performed since the last programmatic review.
Overall Finding:	Yes

Commendation(s):

- The coordination of work placement and continued placement of students in the prevailing economic climate
- Innovation in assessment as evidenced by the case studies described in the document
- Blended approach to delivery of part-time programmes, and proposed collaborative delivery of similar programmes with IT Sligo.
- Employability of the graduates of this programme – good reputation in the industry

Condition(s):
- None.

Recommendation(s):
- Show where and how stakeholder feedback was incorporated or not as the case may be.
- Consider the proposal for including stage 2, 3 and 4 GPA as allowable grades for final award in context of sectorial convention on award classification.
- Clarify the application of this policy to transferees from internal and external programmes.
- Continue to apply parallel initiatives in support of student engagement with the programme. These may include site visits, guest's speakers, science society, and the student recommendation of merit-based choice of projects etc.
- In establishing a schedule of assessments and assessment deadlines, also establish a schedule of assessment feedback / advisory sessions or dates. Note that ongoing student feedback is important and timely feedback is essential
- Consider the students comments that there is a significant reliance on rote learning, and what changes to delivery of the programme might promote other forms of learning.
- Include department response and implementation plan (where relevant) with stakeholder feedback, including feedback from the programme board.
- Reconsider the perceived weaknesses and threats to the programme in light of panel discussions and propose solutions to those items that are within the remit of the programme board, for example those relevant to programme design and delivery.
- Suggest developing a proposal for additional equipment (for example bio-analytical) and facilities (for example upstream bio-processing unit) for programme delivery and its potential use for work placement and development of research activity. Where equipment is not available on campus, consider visiting site(s) to provide relevant demonstrations.
- In view of the high entry points required to enter the programme, consider the reasons why students are failing and /or leaving the programme, particularly at the end of second year.
- Determine what additional measures might be put in place to support retention or advise students with respect to other study /career options.
- Consider the development of focused research within this discipline area, perhaps through strategic use of undergraduate projects, which could be linked to basic industry-referred questions.
- Liaise with the International office in relation to international markets and marketing the programme in Ireland. Consider if the experiences in on-line programme delivery offer any opportunities in the delivery of the full time programmes
- Consider the content of each module and each stage in relation to module and programme learning outcomes, as opposed to content in the first instance.
- There should be a discrete module descriptor for a project which is prescribed instead of work placement.
- A strategy is developed in relation to programme and discipline area development in advance of any future potential rationalisation exercise.

Note: It was noted that the programme board have suggested a proposal in amending the calculation of the final award. Currently 4th year dictates the award. The proposal is to spilt as follows: 70% 4th year, 20% 3rd year and 10% 2nd year. The programme board is proposing this as a plan to improve attendance / retention and performance. The rationale is as follows:

- Attendance is not as high as it should be
- NUIG has been splitting the final award over previous years for a number of years now.
- Has also been discussed with UL
- At present, students just have to pass to get through to other years
- For the students own personal goals, can give them a sense of achievement knowing that they have a certain % going into the following year
- Likely to improve engagement with students
- Way of rewarding students
- Is seen as an equity measure also, as the main research project is carried out in year 3.

4.2 Demand

Consideration for the panel:	Is there a need for the programme and has evidence been provided to support it?
Overall Finding:	Yes

Commendation(s):
- Good employability of graduates from the programme and a good reputation with industry.
- Proposal of the collaborative delivery to run these programmes with Sligo IT
- Part time delivery is also a good initiative and review whether it could be aligned with any of the full time programmes

Condition(s):
- None.

Recommendation(s):
- Consider further the proposal by the Department for including stage 2, 3 and 4 GPA as allowable grades for final award in context of sectorial convention on award classification. Clarify the application of this policy to transferees from internal and external programmes.
- Continue to apply parallel initiatives in support of student engagement with the programme. These may include site visits, guest's speakers, science society, and the student recommendation of merit-based choice of projects etc.
- Reconsider the perceived weaknesses and threats to the programme in light of panel discussions and propose solutions to those items that are within the remit of the programme board, for example those relevant to programme design and delivery. .
- A strategy is developed in relation to programme and discipline area development in advance of any future potential rationalisation exercise.

4.3 Award

Consideration for the panel:	Is the level and type of the award appropriate?

Overall Finding:	Yes

Commendation(s):
- None

Condition(s):
- None.

Recommendation(s):
- Consider the proposal for including stage 2, 3 and 4 GPA as allowable grades for final award in context of sectorial convention on award classification. Clarify the application of this policy to transferees from internal and external programmes.

4.4 Entry Requirements

Consideration for the panel:	Are the entry requirements for the proposed programme clear and appropriate? Is there a relationship with this programme and further education?
Overall Finding:	Yes

Commendation(s):
- The proposal for the collaborative delivery to run these programmes with Sligo IT

Condition(s):
- None.

Recommendation(s):
- In view of the high entry points required to enter the programme, consider the reasons why students are failing and /or leaving the programme, particularly at the end of second year.

4.5 Access, Transfer and Progression

Consideration for the panel:	Does the proposed programme incorporate the procedures for access, transfer and progression that have been established by the HEA and as contained in the Institute's Quality assurance Framework (QAF) COP No.4?
Overall Finding:	Yes

Commendation(s):
- None

Condition(s):
- None.

Recommendation(s):
- Consider the proposal for including stage 2, 3 and 4 GPA as allowable grades for final award in context of sectorial convention on award classification. Clarify the application of this policy to transferees from internal and external programmes.

4.6 Retention

Consideration for the panel:	Does the proposed programme comply with the Institute norms for retention, both in first year and subsequent years? Are both elements of the First Year Experience {(i) Learning to Learn (now Learning and Skills Innovation) and (ii) PASS} embedded in this programme? Evidence of other retention initiatives?
Overall Finding:	Yes

Commendation(s):
• None
Condition(s):
• None.
Recommendation(s):
• In view of the high entry points required to enter the programme, consider the reasons why students are failing and /or leaving the programme, particularly at the end of second year.
• Determine what additional measures might be put in place to support retention or advise students with respect to other study /career options.

4.7 Standards and Outcomes

Consideration for the panel:	Does the proposed programme meet the required award standards for programmes at the proposed NFQ level (i.e. conform to QQI Award Standards)? For parent award? For exit award (if applicable)? For Minor Award (if applicable)? For Special Purpose Award (if applicable)?
Overall Finding:	Yes

The awards standards requirements for programmes on the NFQ Framework can be found at http://www.hetac.ie/publications_pol01.htm

Commendation(s):
• None
Condition(s):
• None.
Recommendation(s):
• Consider the proposal for including stage 2, 3 and 4 GPA as allowable grades for final award in context of sectorial convention on award classification. Clarify the application of this policy to transferees from internal and external programmes.

4.8 Programme Structure

Consideration for the panel:	Is the programme structure logical and well designed and can the stated programme intended learning outcomes in terms of employment skills and career opportunities be met by this programme?

Overall Finding:	Yes

Commendation(s):
* None
Condition(s):
* None.
Recommendation(s):

* Consider the content of each module and each stage in relation to module and programme learning outcomes, as opposed to content in the first instance.
* There should be a discrete module descriptor for a project which is prescribed instead of work placement.

4.9 Learning and Teaching Strategies

Consideration for the panel:	Have appropriate learning and teaching strategies been provided for the proposed programme that support Student Centred Learning (SCL)? Evidence of consideration of flexible delivery methods including eLearning?
Overall Finding:	Yes

Commendation(s):
* Blended approach to delivery of part-time programmes, and proposed collaborative delivery of similar programmes with IT Sligo
Condition(s):
* None.
Recommendation(s):
* In establishing a schedule of assessments and assessment deadlines, also establish a schedule of assessment feedback / advisory sessions or dates. Note that ongoing student feedback is important and timely feedback is essential
* Consider the students comments that there is a significant reliance on rote learning, and what changes to delivery of the programme might promote other forms of learning.
* Include department response and implementation plan (where relevant) with stakeholder feedback, including feedback from the programme board.
* Reconsider the perceived weaknesses and threats to the programme in light of panel discussions and propose solutions to those items that are within the remit of the programme board, for example those relevant to programme design and delivery.
* There should be a discrete module descriptor for a project which is prescribed instead of work placement.
* A strategy is developed in relation to programme and discipline area development in advance of any future potential rationalisation exercise.

4.10 Assessment Strategies

Consideration for the panel:	Have appropriate programme assessment strategies been provided for the proposed programme (as outlined in the QQI/HETAC Assessment and Guidelines, 2009)?
Overall Finding:	Yes

Assessment strategies are required in line with HETAC's Assessment and Standards and should be considered by the programme EPRG. See (HETAC (2009) Assessment and Standards, Section 4.6.1, page 33). Accordingly the assessment strategy should address the following (See (HETAC (2009) Assessment and Standards, Section 2.2.5, page 13) :

- Description and Rationale for the choice of assessment tasks, criteria and procedures. This should address fairness and consistency, specifically their validity, reliability and authenticity;
- Describe any special regulations;
- Regulate, build upon and integrate the module assessment strategies;
- Provide contingent strategy for cases where learners claim exemption from modules, including recognition of prior learning;
- Ensure the programme's continuous assessment workload is appropriately balanced;
- Relate to the learning and teaching strategy;
- Demonstrate how grading criteria will be developed to relate to the Institutional grading system.

4.11 Resource Requirements

Consideration for the panel:	Does the Institute possess the resources and facilities necessary to deliver the proposed programme?
Overall Finding:	Yes

Commendation(s):
- None

Condition(s):
- None.

Recommendation(s):
- Suggest developing a proposal for additional equipment (for example bio-analytical) and facilities (for example upstream bio-processing unit) for programme delivery and its potential use for work placement and development of research activity. Where equipment is not available on campus, consider visiting site(s) to provide relevant demonstrations.

4.12 Research Activity

Consideration for the panel:	Evidence that Learning & Teaching is informed by research? Number of staff engaged in institutional/pedagogical research?
Overall Finding:	Yes

Commendation(s):
- None

Condition(s):
- None.

Recommendation(s):

- Consider the development of focused research within this discipline area, perhaps through strategic use of undergraduate projects, which could be linked to basic industry-referred questions.

4.13 Quality Assurance

Consideration for the panel:	Does the proposed programme demonstrate how the Institute's quality assurance procedures (QAF) have been applied and that satisfactory procedures exist for the on-going monitoring and periodic review of programmes?
Overall Finding:	Yes

Commendation(s):

- None

Condition(s):

- None.

Recommendation(s):

- None.

4.14 Internationalisation

Consideration for the panel:	Does the proposed programme demonstrate how the syllabi represent an international dimension? Is there evidence of approaches to induct international students?
Overall Finding:	Yes

Commendation(s):

- None

Condition(s):

- None.

Recommendation(s):

- Liaise with the International office in relation to international markets and marketing the programme in Ireland. Consider if the experiences in on-line programme delivery offer any opportunities in the delivery of the full time programmes

4.15 Professional Practice (Work Experience / Internships etc)

Consideration for the panel:	Does the proposed programme incorporate professional practice as per the Institute's policy on professional practice (PP)? If not, is there evidence that PP is under consideration by the programme board?
Overall Finding:	Yes

Commendation(s):

- The coordination of work placement and continued placement of students in the prevailing economic climate
- Over 50% of students are kept on after their work placement

Condition(s):
- None.

Recommendation(s):
- Suggest developing a proposal for additional equipment (for example bio-analytical) and facilities (for example upstream bio-processing unit) for programme delivery and its potential use for work placement and development of research activity. Where equipment is not available on campus, consider visiting site(s) to provide relevant demonstrations.
- There should be a discrete module descriptor for a project which is prescribed instead of work placement.

5.0 Module-Level Findings: General

In relation to the modules, the panel suggest that there is a review of some modules in terms of commonalities, and try to amalgamate where possible.

5.1 Module Assessment Strategies

Consideration for the panel:	Have appropriate module assessment strategies been included in each Module Descriptor?
Overall Finding:	Yes

Commendation(s):
- None

Condition(s):
- None.

Recommendation(s):
- In establishing a schedule of assessments and assessment deadlines, also establish a schedule of assessment feedback / advisory sessions or dates. Note that ongoing student feedback is important and timely feedback is essential
- There should be a discrete module descriptor for a project which is prescribed instead of work placement.

5.2 Module Level-Findings: Specific Named Modules

5.2.1 Module (Cell Biology in Year 2)

Note: This was introduced as an elective in year 2.

6.0 Student Findings

Two students, both 4th years who has just finished work placement gave their feedback. One of the students suggested that for the students who had studied science subjects for their

Leaving Certificate, that there should be an elective in first year as they felt that it was just a revision of leaving certificate science. Both commented on the fact that there is a massive jump in year 3 in terms of lab work, experiments and project work, and that the research projects were beneficial.

Lecture feedback on assessments for some was very vague, others the feedback was worthwhile. Work placement was seen as hugely beneficial and basically what defines 4th year, although 9 weeks was seen as quite restrictive. They both felt that there was a substantial amount of rote learning / going through slides and not enough engagement.

Both students would have liked if they had more practice on presentations, more problem based learning and greater integration of subjects. They also commented that although there was a lot of equipment some of it was quite old.

Overall their experience was positive, with good job prospects on completion of the course.

7.0 Stakeholder Engagement

No concerns were raised in relation to the level of stakeholder engagement, other than to show how stakeholder feedback was considered and incorporated (or not) into the proposed programme modifications.
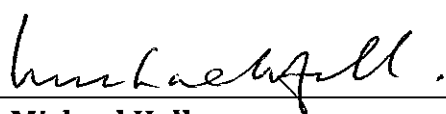
8.0 Future Plans

It is the intention of the programme board to collaborate on delivery of similar programmes with IT Sligo. The continued coordination of work placement and placement of students in the prevailing economic climate is key, albeit challenging. Considering changes to delivery of the programme in terms of other delivery methods and forms of learning is also planned. The programme board is also proposing to amend the calculation structure and rationale for same has been provided above.

Consideration for the panel:	Evidence that the programme board considered and identified opportunities and signalled proposals for related new programme and award development.
Overall Finding:	Yes

Validation Panel Report Approved By:

Signed:

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Dr Michael Hall
Chairperson

Date: 24 April 2015.