



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

| | |
|-----------------------------|--|
| Named Award: | Bachelor of Science |
| Programme Title(s): | BSc (Hons) in Chemical and Pharmaceutical Science L8 (4 years) BSc in Chemical and Pharmaceutical Science L7 (3 years) L8 (+1 year) |
| Exit Award(s): | Higher Certificate in Chemical and Pharmaceutical Science |
| Award Type: | Higher Certification Ordinary Degree Honours Degree |
| Award Class: | Major |
| NFQ Level: | Level 6 Level 7 Level 8 |
| ECTS / ACCS Credits: | 120 180 240 |
| Minor Award(s): | Certificate in Science in Bio Pharmaceutical Science L6 (SPA) Certificate in Science in Pharmaceutical Science L6 (SPA) Certificate in Science in Bio Pharmaceutical Technology L7 (SPA) Certificate in Science in Pharmaceutical Technology L7 (SPA) |
| Location: | Galway |

Panel Members

| Name | Position | Organisation |
|------------------------|---------------------------|--|
| John Cusack | Chairperson | Athlone Institute of Technology(Retired) |
| Cait Noone | Secretary | Galway-Mayo Information Technology |
| Dr Sean Reidy | IOT Member | Athlone Institute of Technology |
| Prof John Corish | University Member | Trinity College Dublin |
| Dr Donal Coveney | Professional Practitioner | Top Chem Pharmaceuticals Ltd |
| Christopher Nottingham | Institute Graduate | |

Programme Board Team

| | | |
|------------------|----------------|-----------------|
| Seamus Lennon | David MacHale | Sean Hughes |
| Des Foley | Frances Martin | Emer Quirke |
| Seamus O'Donnell | Colin Conway | Una Quigley |
| Rachel McCarthy | John Keary | Ita Kelly |
| Yvonne Slattery | Aoife Malone | Marilla Keating |
| Gay Keaveney | | |

1 Introduction

The following report to Academic Council is a validation panel report from an expert panel of assessors on the approval of the programme Chemical and Pharmaceutical Science

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

- The External Peer Review Group (EPRG) has come to the conclusion that they approve the programme for a further five academic years or until the next programmatic review, whichever occurs sooner, subject to 3 conditions and a number of recommendations.
- The EPRG state that there were many positive features in this programme. They welcome the proposed changes and compliment the programme board for these changes.
- The EPRG acknowledge the interaction and excellent relationship between staff and students on this programme. The fact that students would feel comfortable coming back to the lecturers to ask for assistance and advice in the future was commendable.
- The EPRG congratulate the success of the programme in terms of graduate employment. The 100% success rate is highly commendable.
- The EPRG found that the Special Purpose Awards (SPAs) mentioned above were a very positive development and commend the programme board for reacting to industry needs and fulfilling their requests. The cooperation and collaboration between the programme board and industry and the quick response to change was commendable.

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

Bachelor of Chemical and Pharmaceutical Science

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 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

| | |
|-------------------------------------|---|
| <i>Consideration for the panel:</i> | Is there evidence of reflection in the SER of how the programme performed since the last programmatic review. |
| <i>Overall Finding:</i> | Yes |

4.2 Demand

| | |
|-------------------------------------|---|
| <i>Consideration for the panel:</i> | Is there a need for the programme and has evidence been provided to support it? |
| <i>Overall Finding:</i> | Yes |

4.3 Award

| | |
|-------------------------------------|---|
| <i>Consideration for the panel:</i> | Is the level and type of the award appropriate? |
| <i>Overall Finding:</i> | Yes |

4.4 Entry Requirements

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

4.5 Access, Transfer and Progression

| | |
|-------------------------------------|---|
| <i>Consideration for the panel:</i> | 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? |
| <i>Overall Finding:</i> | Yes |

4.6 Retention

| | |
|-------------------------------------|--|
| <i>Consideration for the panel:</i> | 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? |
| <i>Overall Finding:</i> | Yes |

4.7 Standards and Outcomes

| | |
|-------------------------------------|---|
| <i>Consideration for the panel:</i> | 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)? |
|-------------------------------------|---|

| | |
|-------------------------|-----|
| <i>Overall Finding:</i> | Yes |
|-------------------------|-----|

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

4.8 Programme Structure

| | |
|-------------------------------------|---|
| <i>Consideration for the panel:</i> | 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? |
| <i>Overall Finding:</i> | Yes to include 1 Condition |

Condition:

- The EPRG requests that the programme board remove the claim included in the current SER document regarding the learning outcomes in technical transfer operations. At present it gives the impression that technical transfer operations is largely covered, when in reality the programme just includes an introduction to this topic. The SER document should reflect this fact. The panel state that the programme board must ensure that the learning outcomes of this programme are appropriately reflected in the SER document.

4.9 Learning and Teaching Strategies

| | |
|-------------------------------------|---|
| <i>Consideration for the panel:</i> | 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? |
| <i>Overall Finding:</i> | Yes to include 2 Recommendations |

Recommendations:

- The EPRG strongly encourages plans to incorporate new learning technology with a view to increase blended learning in order to enhance the quality of this programme. There is potential for a much greater usage of Moodle by staff who are currently delivering this programme and the panel encourage all staff to actively engage in this process.
- The EPRG recommends that the programme board use programme board meetings as a forum to encourage other sharing mechanisms between lecturers (for example sharing ideas, future plans and programme developments)

4.10 Assessment Strategies

| | |
|-------------------------------------|---|
| <i>Consideration for the panel:</i> | Have appropriate programme assessment strategies been provided for the proposed programme (as outlined in the QQI/HETAC Assessment and Guidelines, 2009)? |
| <i>Overall Finding:</i> | Yes to include 1 Condition |

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.

Condition:

- The EPRG states that the programme board must lower the current 80% emphasis on final exams in the 4th year of this programme and replace the current emphasis with appropriate weight on Continued Assessments in line with best practice. The possibility of applying a certain weighting from third-year examination results to the determination of each student's overall degree grade at the end of fourth year might be considered.

4.11 Resource Requirements

| | |
|-------------------------------------|--|
| <i>Consideration for the panel:</i> | Does the Institute possess the resources and facilities necessary to deliver the proposed programme? |
| <i>Overall Finding:</i> | Yes |

4.12 Research Activity

| | |
|-------------------------------------|--|
| <i>Consideration for the panel:</i> | Evidence that Learning & Teaching is informed by research? Number of staff engaged in institutional/pedagogical research? |
| <i>Overall Finding:</i> | Yes to include 1 Recommendation |

It was noted that staff were engaged in informal research but they had no published research completed.

Recommendation:

- The EPRG encourages staff involvement in ongoing research and recommends that the staff engage in small research projects at undergraduate level to create a research ethos within this section of the school.

4.13 Quality Assurance

| | |
|-------------------------------------|--|
| <i>Consideration for the panel:</i> | 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? |
| <i>Overall Finding:</i> | Yes to include 1 Recommendation |

Recommendation:

- The EPRG recognise the validity of this programme but recommends that the programme board ensure that the syllabi are kept up to date with any future developments in industry.

4.14 Internationalisation

| | |
|-------------------------------------|--|
| <i>Consideration for the panel:</i> | Does the proposed programme demonstrate how the syllabi represent an international dimension? Is there evidence of approaches to induct international students? |
| <i>Overall Finding:</i> | Yes to include 1 recommendation |

Recommendation:

- The benchmarking of the programme against similar-type degrees, nationally and internationally, should become an integral feature of all future planning and development effort.

4.15 Professional Practice (Work Experience / Internships etc)

| | |
|-------------------------------------|--|
| <i>Consideration for the panel:</i> | 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? |
| <i>Overall Finding:</i> | Yes to include 1 Recommendation |

Recommendation:

- The EPRG urge that the programme board revisit the work placement activity, as currently it is not always successful. The board should apply Quality Assurance mechanisms to the entire work placement process. This includes having a structured approach that is managed effectively, with student and employer feedback and should include an assessment on the knowledge gained upon completion of the work placement. A direct correlation between the learning outcomes identified for the work placement and the quality of the learning opportunity provided for the student should be established and assessed on a continuous basis.

5.0 Module Assessment Strategies

| | |
|-------------------------------------|--|
| <i>Consideration for the panel:</i> | Have appropriate module assessment strategies been included in each Module Descriptor? |
| <i>Overall Finding:</i> | Yes |

5.1 Module Level-Findings: Specific Named Modules

5.1.1 Module (Good Manufacturing Practices Module)

Recommendation:

- The EPRG strongly recommends introducing Good Manufacturing Practices (GMP) as a mandatory component in this programme. Currently GMP is an elective but the panel feel that it would be a very beneficial module to all of the students of this programme and something that industry currently demands.

5.1.2 Module (Medicinal Chemistry Module)

Recommendation:

The EPRG recommends that there should be a lessor emphasis on the Medicinal Chemistry module on this programme. Currently the students feel out of depth with the Biology content involved. Should it continue to be included on the Approved Programme Schedule, the EPRG suggests that a greater introduction and coverage of Biology would help prepare the students for this module.

6.0 Student Findings

Two students attended the meeting.

They had both just completed their final 4th year exams and were currently applying for jobs.

The course was not what they expected as there was a greater emphasis on Chemistry and not so much on Pharmaceutical Science. They found it difficult but also enjoyable.

They did not elect to do the GMP module and regretted this as every job specification requires employees to have completed this module. One student felt there should be more focus on validations having only completed validations during her thesis.

They indicated that the 4th year Christmas exams were sat over 5 consecutive days which was very time pressured and their marks were much lower than expected. After talking to the lecturers the summer exams were spread out and this was very beneficial. They would advise more continued assessment throughout 4th year which would help decrease the pressure on students' final exams.

They had an excellent relationship with their lecturers and found them very helpful.

Commendation:

- The EPRG indicated that the students were excellent ambassadors for the college and for this programme.

7.0 Stakeholder Engagement

Recommendations:

- The EPRG recommends that the programme board develop an industry focused advisory group who attend a meeting at least once a year to establish wider contact with industry. There should be regular communication with key representatives to ensure the programme is current, up to date and directly linked with industry. This process will also help linking theory and practice. The introduction of real-life industrial/commercial projects, submitted by industry for student and staff engagement, could facilitate the promotion of a research ethos and enhance the students' learning experience.
- The EPRG endorse the idea of setting up an alumni group to connect with all of the past graduates of this programme.

Condition:

- The EPRG requests that the programme board should include a student representative who would be present at all future programme board meetings to discuss all aspects of the programme including the design, development and delivery of the programme. This is in line with institute practice.

8.0 Future Plans


| | |
|-------------------------------------|--|
| <i>Consideration for the panel:</i> | Evidence that the programme board considered and identified opportunities and signalled proposals for related new programme and award development. |
| <i>Overall Finding:</i> | Yes |

Commendation:

- The EPRG endorse the development of a pilot plant and support the programme board in this endeavour. This would be a great alternative for those students who cannot find work placement in industry.

Validation Panel Report Approved By:

Signed:



 John Cusack,
 Chairperson

Date:

28/04/2015