

**UNIVERSITY COLLEGE CORK  
NATIONAL UNIVERSITY OF IRELAND, CORK**

**QUALITY ASSURANCE/QUALITY ENHANCEMENT**

**PEER REVIEW PANEL REPORT**

**DEPARTMENT OF CHEMISTRY**

**ACADEMIC YEAR 2016/17**

**Confidential**

**Date: April 2017**

## PEER REVIEW PANEL MEMBERS

Name	Position/Discipline	Institution
Professor Paul Giller ( <i>Chair</i> )	School of Biological, Earth and Environmental Sciences	University College Cork
Ms Kirsty Hayes ( <i>Student representative</i> )	Social Sciences	University College Cork
Professor Michael Lyons	School of Chemistry	Trinity College Dublin
Ms Michelle Nelson	Head, Graduate Studies Office	University College Cork
Professor Fiona Regan	Chemical Sciences	Dublin City University
Professor Gill Reid ( <i>Rapporteur</i> )	Head, School of Chemistry	University of Southampton
Professor Paul Taylor	Professor of Chemical Education	University of Leeds

### TIMETABLE OF THE SITE VISIT

The timetable is attached as Appendix A.

The timetable provided a good range of information that allowed the Panel to explore the issues with a range of staff and stakeholders and make informed recommendations and comments. The timings allowed appropriate interrogation of information beforehand and during the visit itself.

An additional session to specifically capture the views of administrative and technical staff would have been beneficial.

### PEER REVIEW

#### Methodology

The Panel worked as an integrated group throughout the site visit. The Panel wish to note that the Panel composition provided good coverage of both the disciplines and the student perspective as well as appropriate high-level knowledge of the University. Areas of questioning for each separate meeting were defined. Individual Panel members led specific lines of enquiry; contributions came from all members as discussions developed.

Excellent support was received from the quality office. The external members of the Panel commended the process as evidently open and transparent.

#### Site Visit

The Panel had the opportunity to see the facilities that specifically highlighted major deficiencies and the need for renovation.

The Panel were encouraged by the strong engagement and openness of the Chemistry staff and students.

The Panel appreciated the responsiveness of the Department regarding the provision of extra data and information requested during the visit.

## **Peer Review Panel Report**

The Peer Review Panel Report was developed cooperatively.

### **OVERALL ANALYSIS**

#### **Self-Evaluation Report (SER)**

The Panel recognise the challenge for the Department in producing the SER in such close proximity to the RSC Accreditation and the Athena Swan application. Nevertheless, overall, the SER provided a good basis for the Panel to undertake its review. The issues with the SER in relation to this temporal convergence of reviews and accreditation processes mainly resulted in missed opportunities to provide evidence of strengths and examples of good practice, for example, the student-focused nature of the Department. This was a clear strength identified by the Panel during the site visit and deserves full recognition.

In relation to feedback from industry, the Panel felt that there was an overreliance on the stakeholder survey. Other available data could also have been used, particularly given the relatively low response rate to the survey. New developments in on-line digital learning and 2+2 degree programmes were mentioned in the SER, but were not mentioned further during the visit. An explicit set of Departmental recommendations as a conclusion of the self-evaluation was not included in the SER, though the recommendations from the last quality review report were discussed.

The site visit allowed the Panel to explore any areas of concern and interest to their satisfaction.

#### **SWOT Analysis**

The Department did not undertake a SWOT analysis, but instead used an Away Day approach in preparation for their Strategic Plan. While this did not help them to identify threats or all the opportunities, the Away Day was recognised as a positive experience for all staff in Chemistry and helped in engendering a collegiate approach and a collective vision to their plans for future developments.

The Department has identified most of the major strengths and weakness, but has rather underplayed some other strengths which became evident during the visit. In addition, certain threats were overlooked which may have an immediate effect on the Department's activities. While fully recognising the institutional challenges, the Panel recommend that the Department should take a positive and proactive approach to address identified weaknesses and threats, in partnership with the College and University.

#### **Benchmarking**

The Panel noted the rather limited benchmarking. The benchmarking exercise was restricted to two national universities and quite narrowly-focussed surveys and the Panel felt that this was not consistent with the ambitions of the Department at an international level as portrayed in the Strategic Plan. Therefore, the Panel would encourage future benchmarking visits to take place to allow staff the opportunity to see models of best practice as the Department develops the full details of their Strategic Plan and their QIP.

The benchmarking exercise did provide some information in terms of relative teaching loads and metrics, for example demonstrating that the total number of teaching hours was out of

line with the two benchmarked institutions. The Panel strongly supports the Department's plans to reduce face to face teaching hours.

### **Developments since last review**

Improvements made since the last review include partial renovation of a small number of labs and the progress made in moving to a School structure.

A significant improvement has been made regarding building collegiality amongst the staff; this was very evident from discussions with various individuals and groups during the visit.

The Panel Report of the Department of Chemistry in 2001/02 contained the following recommendation, *'there are clear deficiencies in the Departmental infrastructure and safety, such as laboratory layout and positioning and number of fume hoods and we think this should be addressed as a matter of urgency.'* This recommendation has not been addressed to-date.

The Panel report of 2001/02 also recommended that *'the Department should improve its general housekeeping in the laboratories from the safety point of view.'* This recommendation was noted as having been implemented by the Department in their review in 2009 but, in the view of the Panel, there is still significant work required to firmly embed an appropriate culture of safety, risk assessment and management within the Department.

### **FINDINGS OF THE PEER REVIEW PANEL**

#### **Department details including staff and student profile**

Whilst the staff:student ratio is high relative to international norms, the Department has made a number of recent staff appointments. There has, however, been a significant loss of senior staff. The Panel would strongly encourage that in addressing this, Chemistry should adopt an approach that will be beneficial to an integrated School.

The Panel noted a mismatch between current staffing and the ambitions of the Department. Specifically, the SER discusses expansion of provision and internationalisation, but also highlights potential students being rejected on the basis on insufficient resources.

The Panel endorses the Department's intentions around internationalisation as a crucial part of increasing both diversity and funding. However, it noted a lack of any developed strategy at this stage. The Panel would strongly encourage the Department to develop a focussed plan for internationalisation as part of its five year business plan, while taking account of infrastructural changes that are required to realise this ambition.

The Panel believe that there is scope to diversify with regard to education/teaching-focused academics. Staff delivering high quality teaching developments should be supported to do so in a manner that contributes clearly to criteria for promotion. High quality scholarly contributions in teaching and learning that help establish national/international recognition would undoubtedly form part of an evidence base for such progression, whilst also enriching the learning experience for students, and enhancing the reputation of Chemistry at UCC.

## **Department Organisation & Planning**

The Department is currently in the process of establishing a School and an inclusive planning exercise is underway, drawing on the collective vision of all staff. The organisational structure presented in the evolution to a School demonstrates a more appropriate Executive Committee and an External (industrial) Advisory Board.

The Panel recognises the achievement to-date in terms of establishing structures that support the functioning and intra-Department communication, but recognises that further work is needed to ensure that the voices of all staff and student categories are heard.

## **Department Co-ordinating Committee & methodology employed in the preparation of the Self-Evaluation Report**

Whilst the coordination was driven largely by an individual staff member, there was evidence of broad engagement in the process across the entire staff in Chemistry.

## **Evaluation of academic standards and quality of the student learning experience with reference to:**

### *Strategic and curriculum planning*

The Strategic Plan is currently largely aspirational and needs to be aligned and taken forward in the context of a Business Plan that should be developed in cooperation with University offices. A Teaching Committee has been established for a number of years. The new School is encouraged to ensure that its T&L, staffing and research strategies are strongly aligned.

### *Teaching, learning and assessment*

The Panel noted the positive feedback from students in relation to the responsiveness and approachability of staff, the interactive nature of much of the teaching, the range of teaching methods, the adoption of technology to support assessment and the willingness of staff to engage in modern educational technologies.

The Panel noted the positive feedback from the Stakeholders they met, regarding the quality of Chemistry's graduates, their strong skill-set and good core chemistry knowledge, as well as the relevance of programme content to the needs of industry in the region and beyond.

UG students are challenged by programme content, but are also supported in their learning to meet the challenges and to successfully achieve the learning outcomes. However, experiences that are highly valued by students, such as projects, placements and the third-year skills module, are not available evenly across all programmes.

At Masters level, some issues were identified around the repetition of content covered at UG level (for both UCC and other university degree holders), including, in some cases, the use of identical practicals and lab manuals. This problem could be ameliorated through provision of suitable options to allow better alignment of the material to the students' experience and previous knowledge. As explained to the Panel, the MSc Analytical Programme currently does not give students adequate hands-on experience of instrumentation and equipment. There was a mislabelling of the PG Diploma (level 9) as a HDIP (level 8) in the Self-Evaluation Report and Strategic Plan.

Revision of the MSc Analytical programme is recommended, in order to service students appropriately who don't have a strong chemistry background, but enable the development of an advanced analytical programme for those who have the appropriate prerequisites.

There is evidence from both staff and students of a "burden" of teaching and assessment and a need for this issue to be tackled effectively.

The Panel commends the Technical Officers for embracing the opportunity to become involved in teaching and learning. Leadership in innovative teaching approaches is also being shown.

#### *Research insofar as it impacts on teaching*

The Department should explore alternative delivery through more extensive benchmarking, with a view to broadening the scope and nature of research projects, for example to include some suitable educational or outreach based research projects.

There is limited explicit evidence presented on research-led teaching within the SER, but it is evident from meetings with various Stakeholder groups that a great deal of research-led teaching is taking place and there is an opportunity to further engage with the University-wide CIRT project to enhance this further.

The Panel recognises the positive involvement of staff from research institutes into the Department. With respect to access to equipment, there are many contributions from research into teaching. Nevertheless, the use of research facilities by taught students can present some limitations on how readily available the equipment is and restricts hands-on access.

#### *Student support (academic and pastoral)*

The Panel noted that robust discussion of issues takes place within the Staff-Student Committee. There is clear evidence of real engagement in dealing with issues effectively through two-way dialogue. As mentioned elsewhere, PGT students would benefit from access to similar levels of representation. The Department has structures in place to support students academically and pastorally, ensuring open, productive communication.

The Panel advises that care is taken in the future development and proposed expansion of its teaching activities to maintain its key strength in the student support within a manageable framework.

The Department's PAL scheme is working exceptionally well and is a model of best practice in the University, providing significant benefits to both the junior and senior partners in the PAL groups.

Questions were raised around the effectiveness of the College Mentoring Scheme and the Panel recommends that this is reviewed at College level to determine its effectiveness in meeting the needs of 1<sup>st</sup> year students, with a view to revising it if not.

It is evident that course/year co-ordinators are providing effective support and the Panel commends the Department for taking the initiative of appointing a dedicated student well-being coordinator, although we noted the absence of University-wide formal training or

networks. This role and responsibility should continue to be focussed on directing students to the appropriate professional support services within the University, rather than acting in a counselling role other than where related to academic issues.

There should be clear guidance within the Department in relation to the use of appropriate means of communication between staff and students (for example, the apparent growing use of social media which may set undue expectations amongst students in relation to response time and nature).

#### *Student achievement and employability*

The Panel noted the very positive response from the external Stakeholders that we met, in respect of the quality of graduates, their skill set and their good core chemistry knowledge, although we noted that feedback was available from only one of the key industrial sectors.

Data was provided that shows very good achievement and employability amongst graduates.

Data in relation to progression rates was sought during the Panel visit and this demonstrates significant improvements over recent years.

The provision of projects, placements, problem papers and skills modules are likely to have contributed to the overall successes and student achievement in the Department.

#### *Staff development*

Limited evidence was provided in the SER regarding staff development. However, it became apparent through discussions during the Panel visit that a number of staff, including Technical Officers, are taking advantage of opportunities to gain professional teaching qualifications.

The Panel noted that there are further opportunities for staff to avail of training and gaining information on a range of other areas, including student well-being, financial management and identification of development needs. The Panel advise utilising existing University supports in other areas (e.g. training for staff members involved directly in student support, training in finance, access to philanthropic funding, etc.)

The internal sharing of good practice appears rather *ad hoc* and the Department would benefit from a more formal approach.

The Panel advises that performance and development reviews of staff should be used in order to identify staff development and training needs, along with detailed interrogation of the Workload Distribution Model data to facilitate workload allocation.

The Panel noted favourably the Head of Department's motivation to allocate workload and encourage staff along the lines of their interest and expertise as far as possible.

*Resources (staffing, physical, technical, other)*

Whilst there has been some remedial maintenance of some of the labs since the last Quality Review, the very poor quality of much of the teaching lab facilities, both in terms of the fabric of the Kane Building and the lab equipment, fittings and fixtures (e.g. gas and water taps and fume hoods) has severe implications on the Health & Safety of anyone entering the labs. It also impacts negatively on the student experience, and brings a significant risk to student recruitment and income generation. These facilities are wholly inadequate to such an extent that it is the Panel's strong view that the entire future of the Department is at risk in terms of H&S, student experience, reputation, recruitment and income generation, without a very significant upgrading and modernisation of facilities. Some of the necessary renovation and modernisation to meet H&S requirements would benefit from a more constructive approach from the UCC H&S Office that would allow the implementation of solutions that are widely used to meet requirements of H&S regulations in this jurisdiction and elsewhere.

The Panel recommends that a review is undertaken by an external expert consultant and is supported by appropriate benchmarking visits to other institutions. A potential solution might be to consider creating different types of labs – dedicated synthesis labs and labs that can be used for more than one discipline. Whilst we recognise the significant funding implications, creative solutions need to be found by the University working with the Department and the College such as dedicated bank loans, industry, philanthropy, alumni fundraising, industrial development agencies, etc.

The Panel was also made aware of existing money and proposals being made to external funding sources and would strongly recommend that the priority for use of these funds is given to H&S and teaching and learning over external appearance and features of the building.

There is a significant need to replace aging outdated equipment with dedicated modern equipment for teaching, ensuring adequate associated maintenance contracts and technical support.

In order for the Department to meet its aims and objectives as it becomes a School, appropriate administrative supports need to be in place. Interactions with the College as well as internal focus on income generation should be considered to help support the structures required.

The Panel also recognises the need for a Chief Technical Officer role and senior academic appointments as outlined previously.

*Local quality assurance and enhancement activities, including those for student feedback and evaluation*

The Panel welcomed the continuation of module level feedback in the absence of the institutional module survey, but strongly recommend an additional focus on feedback at the programme level (with guidance from the quality process) to be used in conjunction with annual programme review.

External examiner feedback is good and the Panel recognised the responsiveness of staff in addressing Examiners' concerns.



### *Academic collaborative partnerships*

The strong engagement with UCC research centres is clearly evident and to be commended, as is the collegial atmosphere within the Department. Positive interactions with research centres also provide opportunities for enhanced teaching engagement such as contributions from Adjunct Professors and partial funding for new staff positions.

The Panel saw less evidence of interactions between disciplines, or more precisely between Departments/Schools, although they noted good practice of joint appointments with Pharmacy which enhance teaching and research opportunities.

### *External relations*

There is evidence of outstanding outreach activity. There are strong individual links with industry, particularly in the pharmaceutical sector, but at the Department level such links are rather unstructured, leading to concerns about their sustainability. Nevertheless Chemistry has demonstrated very good practice in some areas of academic and industrial linkage. There are opportunities to exploit new linkages with UCC alumni involved in industry.

The Panel strongly recommends appointing a prominent external stakeholder to chair the new Industry Advisory Board.

Limited evidence was provided on Department / subject specific collaborations between UCC and international universities, apart from research links, that would facilitate collaborative degree developments. The internationalisation proposals in the Strategic Plan are clearly at an early stage and considerable thought needs to be given as to potential partners and to exploit current collaborations between UCC and international universities.

### *Case Study of Good Practice*

It is excellent to see a piece of work that has been established in 2008 to have been improved and adapted to the point where it is chosen as a best practice exemplar. The student response during the Panel visit confirms the value of this process and it should be recommended, where possible, to retain small group numbers to maintain the strong student peer-tutor interaction. This is a very positive development that is having real impact. The Panel think it would be good to see if it has resulted in better retention of students taking chemistry and indeed better marks in chemistry among those who entered who had not taken chemistry at Leaving Certificate level.

The Panel encourages that the PAL development and results should be published.

The Panel would recommend that this model might be extended to cover other areas of activity within the Department, such as student-led H&S training, student-led preparation for placements, etc.

**The Peer Review Panel is asked to comment specifically on the Department under the following headings:**

*Confirmation that programme provision is still located correctly on the National Framework of Qualifications (NFQ).*

The Panel confirms that all of the following UG and PG taught degree are at an appropriate level:

- BSc (Chemistry)
- BSc (Chemistry of Pharmaceutical Compounds)
- BSc (Chemistry with Forensic Science)
- BSc (Chemical Physics)
- MSc in Analytical Chemistry
- MSc Environmental Analytical Chemistry
- MSc Pharmaceutical Analysis

However, there are apparent inconsistencies in relation to the PGrad Dip in Analytical Chemistry – referred to as an HDip in the SER. The Department is asked to ensure the appropriateness of the module provision for students who have already taken a chemistry degree as discussed earlier.

*Compliance with European Standards and Guidelines for Quality Assurance in the European Higher Education Area – Part 1.*

Compliant

#### **RECOMMENDATIONS FOR IMPROVEMENT**

The Panel identified many very positive features of the education programmes and teaching and learning opportunities in Chemistry. There are also a number of changes or modifications, requiring input from Chemistry and working in partnership with the institution, that the Panel considers would enhance the quality and help the Department fulfil its ambitions into the future. Hence, the Panel makes the following recommendations:

##### **Health & Safety**

- The Panel strongly believes that the current state of some of the teaching labs in the Kane Building has severe implications on the Health & Safety of anyone entering the labs, as well as on the student experience, and brings a significant risk to student recruitment and income generation. These facilities are wholly inadequate in terms of fabric of building and fixtures and fittings. It is the Panel's strong view that the entire future of the Department is at risk in terms of H&S, student experience, reputation, recruitment and income generation, without a very significant upgrading and modernisation of facilities.
- Some of the necessary renovation and modernisation to meet H&S requirements would benefit from a more constructive approach from the UCC H&S Office that would allow the implementation of solutions that are widely used to meet requirements of H&S regulations in this jurisdiction and elsewhere. The Panel recommends that a review is undertaken by an external expert consultant and is supported by appropriate benchmarking visits to other institutions. Consideration could be given to combined laboratories that could meet the needs of more than just Chemistry in the Kane Building. A potential solution might be to consider

creating different types of labs – dedicated synthesis labs and labs that can be used for more than one discipline. Whilst we recognise the significant funding implications, creative solutions need to be found by the University working with the Department and the College such as dedicated bank loans, industry, philanthropy, alumni fundraising, industrial development agencies, etc.

- The Panel was also made aware of existing money and proposals being made to external funding sources and would strongly recommend that the priority for use of these funds is given to H&S and teaching and learning over external appearance and features of the building.
- The Panel recommends the establishment of School Safety Officer to report to the School Safety Committee with representation across the School. The Panel feels this is important to ensure that the profile of H&S is increased, including training and monitoring of H&S through risk assessments, regular inspections, monitoring etc. The Panel is concerned that some of these activities are inadequate at present; the Panel observed that the fume hoods both in number and type are inadequate, there was also a solvent smell in the laboratory. Establishing safe working practices is a key requirement in Chemistry, and not just in relation to the fabric of the building. It is essential that the School Safety Committee interfaces effectively with the University Safety Office.

#### **Business plan**

- The Department should develop a five year business plan by working proactively with the College and the University Finance and Development Offices. The Department should utilise expertise from other areas in the University to develop this plan.
- Replacements of senior staff will require clear business planning to develop pathways for the future; the need for additional staff has to be considered in the context of ensuring delivery of School goals, with clear criteria in the job specification to ensure delivery of the core Chemistry within the taught programmes, but not ending up with sub-disciplinary silos. Specifically, the Panel recommend a move away from just appointing to Inorganic, Organic and Physical sub-sections.

#### **Resources – staffing and equipment**

- In order for the Department to meet its aims and objectives, appropriate administrative supports need to be in place. Interactions with the College as well as internal focus on income generation should be considered to help support the structures required.
- The Panel also recognises the need for a Chief TO role and senior academic appointments as outlined previously.
- There is a significant need to replace aging and outdated equipment with dedicated modern equipment for teaching, with appropriate maintenance contracts and technical support.

### **Reduction in teaching and assessment**

- A critical review of hours delivered versus credits should be carried out (explicitly to reduce contact in those modules which exceed the University norm for lecture load for 5 credit modules) and mechanisms put in place to avoid future proliferation and ensure teachers work within an envelope and are effective. This needs to be addressed effectively and robustly to improve the student experience and create time for staff to pursue the other recommendations, as well as their research. Suggestions from staff and students we interviewed include:
  - Introducing directed reading tasks;
  - Streamlining continuous assessment to avoid congestion;
  - Consider reducing the new material covered in the final teaching week of each semester (use this for revision classes, etc.).

### **Curriculum reform**

- There is an opportunity to rebrand and rationalise programmes and modules. In particular, the Panel recommends that the Chemistry with Forensic Science programme is reviewed to determine whether it meets the needs of potential employers, or whether rebranding of this as a UG programme in Analytical Chemistry might better meet current demands of students and employers.
- The Chemical Physics programme, although of very high quality, attracts only a very small cohort of students; the Panel recommends that rebranding is considered (including changing this programme title, if appropriate).
- A review of the MSc Analytical programme is recommended, in order to service students appropriately who don't have a strong chemistry background, but also enable the development of an advanced analytical programme for those who have the appropriate prerequisites. The inclusion of options that allow a student to better align the programme with their previous experience and expertise is recommended. The increase in numbers on the MSc programme means that it also needs more structure.
- Internationalisation opportunities could be enhanced, for example, by examining the extent and nature of prerequisites for modules. The opportunities for collaborative programmes with international partners should be explored urgently.
- The Department should take the opportunity to identify and review high impact experiences such as projects, placements and skills units and where appropriate ensure these are shared across all programmes.
- Students would appreciate integration of a set textbook with course delivery, mapping these in the lecture content and learning outcomes for each module.

### **PG representation**

- The Department should ensure that both the PGR and PGT cohorts are represented and have a voice. This is especially important as the size of the PGT cohort grows.
- The Department should establish a small team of staff to support the MSc programme.

### **Sharing best practice**

The Department should:

- Ensure good teaching practice is shared across all staff, for example, via brown bag lunch sessions.
- Consider using input from students returning from placement to help junior students preparing for placements (as role models), using a development of the PAL model.
- Continue and adequately resource student-focused responsiveness and availability and report what you are doing well by publicising and celebrating successes more widely, both internally and externally.
- Plan succession around key roles and activities (e.g. around industry links, technical support for IT).

### **Tying of strategies**

- Strategy for teaching needs to be aligned with the strategy for research & wider staffing plans, linking directly to the Business Plan.

### **Research project developments**

- The Panel supports the Department's exploration of alternative modes of project delivery, broadening the scope to include, for example, education and outreach innovation. Undergraduate projects do not need to involve lab-based activity; alternative projects could be offered to students with other interests, relieving some pressure on the research labs.

### **Industry**

- The Panel supports establishment of a School Industry Advisory Board (chaired by a high profile external member). This will help to secure industry engagement across different sectors, enhancing industry engagement in a structured way will help to enable the School to deliver its strategy.
- As mentioned above, the School should ensure succession planning to retain links with Industry liaison partners.

### **Support for Head of School**

The Panel wishes to make College level recommendations around putting support structures in place for the new Head of School, including:

- Administrative support;
- Teaching reduction;
- Research support, for example, via provision of PDRA support to assist with the day-to-day management of the Head of School's research group.

This is essential to ensure the Head of School has sufficient time available to take the School forward, while retaining research activity.

## **APPENDIX A**

### **Peer Review Panel Site Visit - Timetable**

<b>Tuesday 4 April 2017</b>	
12.00 - 13.30	<p>Convening members of the Peer Review Panel.</p> <p><u>Purpose</u> Lunch and briefing by Director of Quality Enhancement and Administrative Officer, Quality Enhancement Unit.</p>
13.30 – 14.30	<p>Private meeting of Panel.</p> <p><u>Purpose</u> Panel agree issues to be explored in meetings with Head of School, Head of College and Stakeholders</p>
14.30 – 15.30	<p>Meeting with Head of School</p> <p><u>Purpose</u> Discussion regarding development to date, strategic priorities of the School and overview of educational provision.</p>
15.30 – 16.00	Tea/coffee
16.00 – 16.50	<p>Meeting with Head of College</p> <p><u>Purpose</u> Panel discuss College strategy and priorities. The links between College/School financial resource allocations process, staffing resources and infrastructure.</p>
17.00 – 18.00	<p>Meeting with Stakeholders</p> <p><u>Purpose</u> Panel meet with past graduates, employers of graduates and other stakeholders as appropriate to discuss views on the quality of education received and the quality of the graduates.</p> <p>Representative from Eli Lilly Representative from Eli Lilly Representative from GSK Representative from Eli Lilly</p>
19.00	Informal dinner for members of the Peer Review Panel & staff members of School of Chemistry

<b>Wednesday 5 April 2017</b>	
09.00 – 09.15	Convening of Peer Review Panel
09.15 – 10.15	<p>Meeting with staff of School of Chemistry</p> <p><u>Purpose</u> Panel and staff from the School discuss issues such as teaching/learning, curriculum &amp; assessment.</p>
10.15 – 10.45	Tea/coffee

10.45 – 11.30	<p>Enhancing Student Learning Experience</p> <p><i>Purpose</i> Discussion of School's approaches to enhancement of student learning experience including case-study of good practice, teaching &amp; learning initiatives.</p> <p>Chair Dept. Teaching Committee 4<sup>th</sup> year coordinator and Chair QR coordinating committee PAL for Chemistry Coordinator/Instructor 1<sup>st</sup> year and 3<sup>rd</sup> year coordinator</p>
11.45 – 12.15	Tour of facilities
12.30 – 13.30	Lunch and private meeting of Panel
13.30 – 14.00	<p>Representatives of 1<sup>st</sup> and 2<sup>nd</sup> year students</p> <p>CFS2 Chem 2 CPC2 1st year Bio &amp; Chem Sci – 2 x student representatives</p>
14.05 – 14.35	<p>Representatives of 3<sup>rd</sup> and 4<sup>th</sup> year students</p> <p>Chem3 Chem 4 CFS3 CFS4 CPC3 CPC4 CPY3</p>
14.40 – 15.10	<p>Representatives of Postgraduate students</p> <p>MSc Analytical Chem MSc Analysis Pharm. Compounds MSc Environ, Analytical Chem PGDip Analyt. Chem</p>
15.10 – 15.30	Meeting with Dean of Graduate Studies
15.30 – 16.15	<p>Meeting with:</p> <p>Vice President for Research &amp; Innovation Vice President for Teaching and Learning</p>
16.15 – 16.45	Meeting with College Financial Analyst
19.00	Working private dinner for members of the Peer Review Panel to commence drafting of report.

**Thursday 6 April 2017**

08.45 – 09.00	Convening of Peer Review Panel
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09.00 – 10.00	Meeting with Head of School <i>Purpose</i> Clarification and discussions of main findings by Panel.
10.00 – 10.30	Tea/coffee and private meeting of Panel
10.30 – 11.00	Exit presentation to all staff, to be made by the Chair of the Peer Review Panel or other member of Peer Review Panel as agreed, summarising the principal findings of the Peer Review Panel.  This presentation is <u>not</u> for discussion at this time.
11.00 – 16.00	Further work on drafting the final report.