UNIVERSITY COLLEGE CORK
NATIONAL UNIVERSITY OF IRELAND, CORK

QUALITY IMPROVEMENT/QUALITY ASSURANCE

PEER REVIEW GROUP REPORT

DEPARTMENT OF COMPUTER SCIENCE

COLLEGE OF SCIENCE, ENGINEERING & FOOD SCIENCE

Academic Year 2010/11

Confidential

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Peer Review Overview

Peer Review Group Members

Name	Position/Discipline	Institution
Mr. Shemas Eivers	CEO	Client Solutions Ltd., Cork
Professor Peter Jeavons	Professor of Computer Science	Oxford University, UK
Professor Gerard Lyons	Dean of Engineering & Informatics and Professor of Information Technology	NUI, Galway
Mr. Niall McAuliffe	Capital Projects Officer, Buildings and Estates	University College Cork
Dr. Kieran Mulchrone	School of Mathematical Sciences	University College Cork

Timetable of the site visit

The timetable for the site visit is attached as Appendix A. The Peer Review Group found the timetable to be adequate and suitable for the purposes of the visit.

Methodology

The members of the Peer Review Group worked as a team throughout the site visit and participated in all activities. The Group appointed Professor G. Lyons as Chair of the Group and Dr. K. Mulchrone and Mr. N. McAuliffe acted as joint Rapporteurs. Following the conclusion of the site visit the Rapporteurs prepared an initial draft of the report, with input from other members of the review team on particular areas. Professor Jeavons took the lead responsibility for reviewing the undergraduate programme and the research activities of the Department, Mr. Eivers led from the Outreach/Financial perspective and Professor Lyons led the review from the Teaching and Learning Perspective and also took responsibility for delivering the Exit Presentation to all staff.

Site Visit

The site visit enabled a comprehensive coverage of all activities of the Department, including meetings with students, staff - both collectively and individually, representatives of employers, alumni and other external stakeholders and senior officers of the University. The scheduling was appropriate and facilitated the discussions. The team visited and toured the high-quality facilities now occupied by the Department, saw some teaching sessions in progress, and noted the display of research projects by postgraduate students.

Peer Review Group (PRG) Report

The PRG commenced the drafting of the report during the evening of the second day and the afternoon of the third day. The report was finalised using email communications and was agreed to by all members of the review team prior to submission to the Director of the Quality Promotion Unit

Overall Analysis

Self-Assessment Report

The PRG members carefully reviewed the Self-Assessment Report prepared by the Department before the site visit. This report contained much valuable information about the state of the Department and its recent history, but the PRG members were rather disappointed that the recommendations of the report were all directed to external bodies, rather than providing a strategic plan of action for the Department itself to follow. In addition, a poor initial impression was set for the review group by the negative viewpoints expressed in the Self-Assessment Report. These focussed excessively on historical conflict between different academic groups within the college. However the post-review view of the review group was (and remains) uniformly very positive, which is at odds with the initial impressions created by the Self-Assessment Report. Based on feedback received from a number of staff, it seems that the final version of the Self-Assessment Report was not issued to all staff prior to its final release as per UCC guidelines. The PTG is aware that illness may have been a mitigating factor at this time and recommends that every effort be made to comply in the future.

Overall the Self-Assessment Report was comprehensive, followed the guidelines recommended, was accurate and contained a very detailed set of information which proved useful during the review as a reference document. However, Appendix B (Staff Profiles, 260 Pages) and Appendix E (Research, 160 Pages) were excessively large for this type of report and consideration should be given to having simple summary pages available for printing with electronic access to further detail if required on the day. The feedback received from all parties during the individual or group sessions confirmed the information presented in the report, and many of the key items highlighted were reflected in views expressed during the site-visit by the PRG (e.g. Library, Opening Hours, Teaching Quality, etc).

SWOT Analysis

The SWOT analysis conducted by the Department had identified a number of important issues, but the output of this exercise was rather disjointed and lacked any coherent conclusions or direction. The exercise would be much more useful if the output were synthesised into a coherent and organised report. Perhaps either the external facilitator or the ad-hoc Quality Review Committee should be tasked with producing such a report in the future.

Benchmarking

The Head of Department and head of the ad-hoc Quality review committee collated comparison indicators and visited two similar departments: the School of Computer Science and Statistics at TCD and the School of Systems Engineering, University of Reading, UK. Unfortunately, the quantity and quality of the data obtained in this exercise was poor, leading to a fairly superficial level of comparison. However evidence was presented to indicate;

a) The student:staff ratio at UCC of14:1 is low compared to 17:1 in the benchmarked institutions.

b) Research funding and output could not be accurately assessed but appeared to be of the same order.

c) PhD numbers could be increased in UCC (based upon comparative data for one year only)

The Peer Review Group endorses the suggestion made in the SAR that the QPU be involved in arranging and negotiating data access for benchmarking in future to improve the reliability and depth of such exercises.

Findings of the Peer Review Group

Teaching and Learning

Undergraduate Programme

The undergraduate programme offered by the Computer Science Department is well-designed, up-to-date and provides a valuable education and a highly sought-after set of skills. The number of students on the programme across all four years was at a high point of around 500 at the time of the last Quality Review in 2002, but then decreased significantly over several years to a low point of 210 in 2007/8. This fall in numbers was accompanied by a decrease in the points level at which students were accepted into the course. The retention level also decreased significantly during this period. These changes are more or less in line with national and international norms for Computer Science as a discipline, which experienced a significant drop in demand for undergraduate places world-wide during this period. The fall-off in student intake numbers and quality at entry have posed significant challenges for the Department.. However, this also represents an opportunity to develop strong bonds with a smaller student group, as well as enabling a much lower student:: staff ratio, as there has been little staff attrition over the past 8-9 years.

Our view is that the Department has responded to these challenges extremely positively, and is now beginning to see the benefit of a great deal of hard work over several years. They have sought very hard to maintain **high technical standards** across all courses, and the level of rigour and intellectual challenge in the courses and examinations has been kept high. Very positive feedback was received from all sources on the **quality of the lecturers**, content and delivery and while many students expressed the opinion that they were highly stretched during the year, they were all positive about the commitment of staff and their willingness to help individuals.

The undergraduate programme has evolved over the last few years via the introduction of several **streams** accessed from a common entry course, and sharing many modules. The use of streams is a very flexible way to quickly provide attractive new options in emerging topics, to develop niche areas of particular strength, and to respond to changes in student demand, and we commend this approach. Streaming provides these benefits without encountering the additional risk and overhead of running entirely separate direct-entry CAO programmes, which could result in "cannibalisation" of the core Computer Science programme by any new closely-related degree. The Department has also introduced a number of innovations to improve the undergraduate programme, attract more students and adapt to the changes in student intake:

- An induction course has been developed for first year students which provides intensive early engagement with exciting technology, gives students a sense of achievement early on, and improves social interaction. This has enhanced the student experience and increased engagement across the board, as well as improving retention. This is a very positive development and its importance was reflected in the student interviews.

- The **programming language** taught in the first year has been changed from Java to PHP in order to provide a more gradual transition to the more challenging material later in the course, and to help students to develop confidence and engagement in their transition to university study. This change seems to have been carefully thought out, well-managed and well-implemented.

- The department has sought out new sources of suitable students through an impressive variety of **outreach** activities to schools and young people (see below).

- A range of under-graduate programmes has been developed that are run jointly with universities in China, which have led to a substantial intake of **Chinese students** into (parts of) the undergraduate programme, enriching the cultural experience of all students.

- A scheme for arranging **work placements** for all undergraduates was put in place some time ago and these now form an attractive and valuable feature of the course that is liked by both employers and students.

The numbers of undergraduates choosing Computer Science at Cork is now beginning to rise substantially, both as a result of international trends and economic conditions, and because of the initiatives undertaken by the Department. In the Spring 2010 student recruitment season, the number of students giving Computer Science as their first choice increased by 46% over the previous year. The Department is well-placed to take advantage of this rise in numbers, due to the outstanding facilities it now enjoys in the Western Gateway Building. However, there are a number of issues which need to be addressed:

Recruitment Strategy

- The Department needs to decide on an ambitious, but realistic, **undergraduate recruitment target,** which will allow it to maintain a sustainable, high-quality undergraduate programme as part of a balanced portfolio of undergraduate and graduate teaching, and research activities. It then needs to pursue a sustained **marketing strategy** to achieve that target, building on and supporting the existing outreach initiatives, and engaging and using the skills of a wide range of staff. Feedback from schools visits has suggested that current CS students, rather than academic staff, would be the best ambassadors for future marketing efforts.

- As part of the marketing strategy the **web-site** needs to be developed as the main shop-window for the Department both nationally and internationally. Considerable work has been done already on designing and populating a new version of the site, but there is scope for further improvement. For example, initiatives such as induction week have resulted in exciting student involvement in developing web-sites, and the PRG was shown examples of these, but they are not visible to prospective students. The Department has specific skills in multi-media technology which are not evident in the design of the web-site. Many universities now provide video clips of interviews with students and staff, or virtual tours of their facilities. The Department has many alumni with successful careers who spoke very highly of their experience as undergraduates, and might be willing to provide interview material to act as inspiring role models to attract future students (especially female applicants, currently in a tiny minority). Staff, students and alumni are all effective ambassadors for the Department when

seen in person, this needs to be harnessed and made visible to the world through smarter use of media.

- The strategy of recruiting **undergraduates from China** should be reviewed to see whether it is an appropriate part of the overall recruitment strategy for Computer Science in the changing situation of the next few years. Under the current arrangements the Department itself sees none of the financial benefits directly, but does experience costs in terms of demands on staff time for additional student support. If this initiative is to continue, or expand, the Department must be appropriately resourced to provide the substantial additional support for these students, including activities to improve integration and interaction with the English-speaking students. This could be done by ensuring that the Department itself receives at least a small fraction of the fees paid by such students to use for such purposes, as it sees fit. Above all, the Department must retain full control over academic issues such as required levels of English, and the most appropriate ways of ensuring course integration across two continents.

- The Department could also consider other recruitment targets, such as **UK students** who will shortly be facing much higher fees for undergraduate programmes in the UK than in Ireland.

Resourcing

- The rapid fall in operating budget available to the Department in recent years has resulted in a decrease, or elimination in some areas, in the number of **demonstrators** used in Lab sessions and this will have the following serious impacts if not rectified:
  a) A direct impact on the quality of the student experience.
  b) A reduction in the quality of the graduates.
  c) In-efficient use of the time available from academic staff, impacting on other activities.
  d) Lack of opportunity to gain teaching experience for top performing students and graduates.

- One way to partially address this issue in the current crisis is to require all funded graduate students to contribute 6 hours per week of unpaid demonstrator time. This approach is already implemented in other institutions across Ireland, and could be adopted at UCC.

- The **number of course modules** provided is currently very large and in some cases these are attended by very small numbers of students. The Department has already begun to review the range of options with a view to rationalising them, and this should be carried through vigorously to allow staff resources to be used more efficiently, whilst maintaining a broad and balanced undergraduate programme.

- The strategic plan of the Department includes greater **teaching collaboration** with other units, and the possible provision of modules in computing-related topics to students outside the department (including graduate students). The costs and benefits of this should be carefully considered as part of the strategic plan for financial sustainability.

Quality Assurance

- The Department should bring in a more systematic regime for collecting and using **student feedback.** Feedback should be routinely collected on all modules (possibly using an online system), and considered by the Programme Director or a Course Review Committee, as well as being seen by the lecturer concerned. This is an essential tool in recognising successful and

dedicated teaching, sharing good practice, and helping lecturers to recognise and improve any unsatisfactory aspects.

Master's Programme

In contrast to the well-established and growing undergraduate programme, the Master's level programmes seem to receive much less emphasis within the Department. Although there are some exciting programmes, building on areas of research strength, they are much smaller, and not so well-established as the undergraduate programme. However, once again the resources available in the new building offer considerable potential for growth in this area, and we recommend that the Department develops a similar marketing strategy to significantly grow these programmes as part of its overall teaching portfolio. This could provide a significant source of non-Exchequer income, some of which should be fed directly to the Department.

PhD Programme

We received a very positive impression of the PhD programme within the Department from the graduate students that we met. The impression was that the Department is using the skills and dedication of its academic staff to operate a very successful "apprenticeship" model of PhD training, with a high level of commitment from supervisors. The University is looking to enhance the graduate training that it offers by putting in place a more structured PhD programme, and we welcome that development, but it should be implemented with great care to avoid damaging the valuable relationships that currently exist by imposing an excessively rigid framework. The numbers of PhD students is currently low, given the number of potential supervisors, and we encourage the Department to work to increase this number substantially. (The issue of increasing graduate student numbers was not addressed in the Quality Improvement Plan, but should be an important part of the Department's overall strategy for a sustainable future). We have outlined our belief that unpaid demonstrator time should be provided by students of this programme.

Research & Scholarly Activity

The recent Research Quality Review (March 2009) concluded that "The Department is publishing at an excellent level, and is impacting the research activity in other units within the University in a very positive way." The current review panel endorses this conclusion, and notes particularly that the research output has improved considerably since the previous Departmental review in 2002, and that this improvement was achieved during a very difficult period for the Department, while it was still spread out across many units and had very poor facilities. Most research in the Department is organised into six groups as follows but there is also a joint research group with the Mathematics Department: the Boole Centre for Research in Informatics.

- Centre for Efficiency-Oriented Languages
- Centre for Unified Computing
- Cork Complex Systems Laboratory
- Cork Constraint Computation Centre (4C)
- Knowledge Engineering Group

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- Mobile & Internet Systems Laboratory

The dominant research group within the Department is the Cork Constraint Computation Centre (4C) which employs some 60% of the research staff, and hosts around 40% of the research students. However, the review panel is pleased to see that there has been a strengthening of other research units within the Department to provide a more balanced portfolio of research groups. Most of the growth in research appears to have come about due to bottom-up initiatives of individual staff members, reacting to opportunities as they arose. This is very welcome, but at this point we feel that a more strategic approach could be helpful. In spite of the financial difficulties, the University has taken a bold strategic decision to replace the Research Professor post, following the retirement of the current post-holder. We strongly support this decision, and would expect the person appointed to take a leadership role in developing future research strategy across the Department.

This is a particularly critical time for the development of research in the Department of Computer Science. The recent co-location of all research groups within the Western Gateway Building provides an exceptionally attractive research environment, and a new opportunity to attract attention and funding from a wide variety of sources. We have already seen some evidence of a positive effect of the new facilities on the collaborative atmosphere of the Department and the engagement of staff, and we encourage the Department to fully grasp this opportunity. We believe that there could be benefits to clustering some of the research groups, to share resources and infrastructure, perhaps under some form of umbrella research institute. Such an institute could achieve greater visibility and help to build the national and international profile of the Department across a broader range of research areas.

In spite of the progress made in research activity, it is still the case that quite a few members of staff, perhaps 25-30%, do not appear to be research active at all. In a fast-moving subject such as Computer Science it is easy for an academic's research career to "stall", due to a period where they are heavily committed to other tasks, or even finding that a particular research area is becoming obsolete. Once this has happened it is very difficult to regain momentum, but a supportive research environment can be very helpful. Part of the staff development responsibility of the Department is to ensure that all staff are encouraged to develop their skills and use them to the full throughout their career, and research is an important component of this for all academic staff. The Department has developed some plans for encouraging wider staff research activity, in their Quality Improvement Plan, and these should be actively pursued, making the most of the impetus and opportunities offered by the new building. In particular, organising internal Research Days where active researchers (including graduate students) are encouraged to present not only their achievements and successes, but also research problems for which they lack resources or ideas to make progress themselves, but would welcome input of new ideas or collaborative effort.

Research needs to be publicised (not just published) to attract external collaboration and funding, and to make a scientific and economic impact it has to be visible. It is also an important part of public accountability that evidence of research activity is collected accurately. However, **the current systems for this at UCC do not appear to be robust**. Evidence of research activity provided in the self-assessment document prepared by the Department was extensive, but very hard to summarise, and in some places incomplete and out-dated. Each of the above research groups is maintaining lists of publications in different formats on their own web-sites (one of which is 7 years

out-of-date). An attempted summary description of research activity provided by the central management of the University was wildly inaccurate. We believe that it is strongly in the Department's interest to take ownership of the process for recording and publicising research activity. This is primarily a database design issue which ought to be squarely within the Department's area of expertise (and could be a valuable service to other units). By combining a suitable database, a robust and workable data capture mechanism, and providing a well-designed public interface in a variety of formats, accessible through their own web-site, the Department would ensure that its research efforts, both individual and collective, are recognised, and have the fullest possible impact. Perhaps, a student project could provide a foundation layer that could be developed.

Department Operations

Governance

The school controls its business by means of a committee structure under the direction of a Head of Department, who is currently selected on a rotational basis from the pool of full professors. In light of the restructuring occurring throughout UCC, it is acknowledged that the existing committee structure may need to be aligned more closely with that of SEFS. However, feedback received indicates that the committee structure is working well. The delegation of the chair at meetings is seen as positive by staff. The rotating heads scheme is incompatible with the new Head of School role as defined in the SEFS college rules and from a statutory perspective there may be no way to resolve this issue. However, it may be worth considering a temporary ceding of statutory rights in order to explore the value of operating as a statute L school, whilst at the same time retaining the right to backtrack. A committee is used to allocate lecture hours but some negative feedback was received about the degree to which specific requests rarely seem to be reflected in the final allocation and that no account was taken of high or low levels of research activity.

Research Funding

The Department has been extremely successful in attracting research funding over the past 10 years. It will clearly be a challenge to maintain the current levels of research funding in the current economic climate, but we have seen some evidence of strategic thinking by some research groups as to how they will sustain their activity by attracting new sources of funding, including international funding and commercial funding. The Department has many assets, including its human and intellectual resources, and physical resources, and needs to leverage these effectively in as many ways as it can. The environment for commercial exploitation of IP and physical resources seems to be favourable at UCC, and part of the strategic plan of the Department for achieving financial sustainability in a difficult climate must be to fully and creatively utilise all its available assets.

Library Resources

Several of the postgraduate students were very critical of the book collection for Computer Science available in the library, saying that it was very outdated. Upon investigation we discovered that the funds allocated for the purchase of new books was Zero in 08/09 and €1,574 in 09/10. This

appears to be due to the extremely high cost of maintaining access (both physical and electronic) to research journals, which does seem to have been maintained at a satisfactory level but resulted in the exclusion of other material. However, the Department must ensure that the book collection is also updated to a suitable level and maintained (ensuring that students are consulted and involved in this process). Further investigation uncovered that the massive reduction in discretionary funding available to the department was due to the impact of the RAM on the discretionary funds available to the department. (See RAM Recommendations).

Financing and Staffing

Through the lens of the RAM model the School is in serious deficit. All staff are acutely aware of this fact and some find it quite threatening. Furthermore, slashing of operational budgets throughout SEFS and UCC has left the School in control a miniscule budget. This has led to a sharp deterioration of frontline services, in particular provision of demonstration, which directly affects the student experience negatively. It is with regret that we note that the pioneering work of Computer Science in attracting non-EU students does not lead to a tangible benefit to the Department other than reducing the notional RAM deficit. It is also incongruous that the large infrastructure and human resource investment in Computer Science is followed by such a lack of recurrent support.

In comparison to other units in the University, the School is over-resourced in terms of the ratio of academic staff to the number of students registered. The Department is well aware of this issue, and is pursuing a strategy which should result in this number being aligned with University norms over a period of five years. The PRG would like to highlight the fact that bringing the staff student ratio from 14:1 to 20:1 will not on its own repair the RAM deficit currently incurred by the unit. Alternative income streams, such as non-EU students, renting of specialised facilities and growth of graduate numbers, need also to be carefully considered, as part of the strategic financial plan. Similarly, the financial implications of different types of students (undergraduate, taught masters, graduate research) needs to be considered.

The review group was impressed by the mutual respect and value accorded by each of the academic, administrative and service staff to each other. We found evidence that the support structures are very effective in organising the core activities of the Department. Overall the Staff are generally of positive outlook which is very encouraging in light of the difficulties the Department has experienced. The move to the new facilities has been a factor in engendering a resurgence of goodwill, positive attitude and engagement. This culture needs to be actively nurtured, as the new facilities will soon become accepted as the norm and the long struggle to obtain them fades into history.

Given the severity of the financial constraints faced by the University it is important to nurture this positive outlook. This is particularly important given the current lack of promotional prospects, travel grants and sabbatical leave.

Accommodation

The Department moved into purpose built and state of the art accommodation in the newly constructed Western Gateway Building in 2009. Prior to this the department was housed in 14 separate, on and off campus locations. The relocation from the dispersed locations to a single

modern building has benefited the department in a number of ways. The department is more cohesive, its profile within and outside the University has been enhanced, staff and students have more opportunity to interact and the quality of laboratories and ancillary space has enhanced the undergraduate and post graduate experience contributing to a very strong sense of departmental identity amongst the students. The research groups within the department are now located adjacent to each other with the consequent potential benefits of ease of and enhanced cooperation and communication. However, under the RAM rules departmental space is a key metric and in order for this level of accommodation to be maintained it will be necessary for Computer Science to maximise resource utilisation. One way to improve usage which has been requested by several research staff and graduate students would be to allow extended working hours, and we recommend that ways be sought to enable this.

RAM Model

The Resource Allocation Model (RAM) used by UCC is, like all such models, constantly open to criticism and requests for change. In our experience all models such as this need ongoing adjustment to ensure that unwanted side-effects are mitigated. We appreciate that conflicting requests will be received by the College and School. But, in the case of the CS Department, we suggest that the following changes or refinements should be considered: d.

- **Foreign Students** that bring additional revenue to the College but require additional direct-cost resources from the department should be recognised in the model, to both: (i) cover these additional costs and (ii) reward the efforts of the department in revenue diversification;

- The **standard ratings** associated with Computer Science students may be too low given the amount of Laboratory work performed especially in the case of the multi-media students. In particular the department gets charged for the significant amounts of Lab space and for the Network connections but fails to get the credits via the RAM model. We recognise that this is a sectoral weighting, where CS is regarded as a "Field-work" rather than a "Laboratory" subject. This is a flawed accounting practice in RAM, with the ultimate impact of undermining the break-even potential of Computer Science, given its actual cost-base.

- The current RAM model seems to be influencing departments/faculties to self teach modules rather than to **sub-contract** them to other departments as would normally have occurred. This is a negative side effect of the RAM that should be evaluated and possibly incorporated in the model.

- The RAM model takes no account of a department where the **student numbers are in significant decline** with the result that the department is effectively choked and placed in an impractical situation over which they have no control. It makes no sense for the College to spend significant amounts on a department in terms of salaries and facilities and to then severely constrain it by almost eliminating the discretionary budget for the sake of <0.2% of the overall department cost.

External Relations

External Initiatives

The department has developed an impressive number of activities over the last 5 years to improve their interaction with the community and to foster a better understanding of the nature of

Computer Science and the opportunities for Computer Science graduates. Many of these initiatives are led by individuals who are highly motivated and very enthusiastic about the Department who volunteer their time over and above that required in the normal course of their employment. This is to be highly commended and encouraged by means of some formal recognition process.

- The weekly Saturday morning course provided to **Transition year** students is now seen as a very desirable course by secondary students and gives the department a fantastic opportunity to convey the benefits of the degree to high achieving students. However, some of the feedback was that while the course was exceptional the top students in many cases still favoured other degrees. We believe that the effort put into developing this activity should be recognised, and mechanisms found to encourage it to continue and develop, perhaps with the involvement of more staff members.

- A joint **collaborative approach** with CIT and IT@Cork has been implemented with the aim of educating the wider community about the positive aspects of the degree course and to counter the negative image held by some parents and in particular female school leavers about a career in the industry. This approach has the benefit of being backed by professionals in the industry and has some separate funding sources.

- A **public relations committee** has been formed and is actively involved in promoting the department directly to the various feeder schools. A very successful schools competition has been implemented which results in one student from each of the 40 competing schools being selected for a placement week within the Department. The positive message conveyed during the competition is as important as the subsequent course.

Communications

Communications within the Department have shown a marked improvement due to co-location. Monthly or more frequent staff meetings occur and it appears that all staff have an opportunity to voice their opinion through this or related fora. However, the following items were raised during discussions that could be improved via specific communications to all staff.

- Not all staff are clear about the system for promotion.
- Some staff were unclear about the system for assigning teaching roles.
- There was a lack of clarity with respect to what workload was and was not considered when considering workload allocation. (e.g PhD Student management)
- PhD students not connected with undergraduates and general staff.

There is concern that within the SEFS structure the channels of communication between Computer Science and senior management are narrowed to an interaction between the Head of College and the Head of School. We recommend that this be mitigated somewhat by the Head of College (or other senior managers) meeting with Computer Science staff on a yearly or more frequent basis. It would also be helpful to strengthen the role of committee chairs, with responsibilities for specific areas, and encourage them to collaborate in college-wide discussions.

Last Quality Review Updates

NOTE: This section is a Follow-up on the actions and implementation of recommendations for improvement made in the Quality Review of the Department of Computer Science conducted in 2001/02.

The PRG considered the report submitted by the Department on the outcomes of the Quality Review conducted in 2001/02 of the Department of Computer Science and noted that most of the recommendations had been acted upon and implemented in whole or to a large extent. The PRG noted in particular that the improvement in facilities strongly recommended in the previous report had finally been completed with the move to the Western Gateway Building in 2009 and the successful integration of all members of the Department, including the 4C research Centre under one roof in excellent facilities. However, we note that issues of improving student feedback[1] and library book provision mentioned in the last review have been raised again in this review. The library book provision was the key issued raised by students at all levels during the interviews.

➤ **Appendix B** contains the detailed follow-up report on the actions taken.

Recommendations

Department Recommendations

The PRG carefully considered the recommendations for improvement made by the Department in the Self-Assessment report and has incorporated these, as deemed appropriate by the Group, in the recommendations for improvement detailed below.

Peer Review Group Recommendations

The recommendations are split as follows for ease of reference

Department Recommendations
1) Develop a fully quantified **strategic plan for achieving financial** sustainability in a difficult climate by fully and creatively utilising all available assets.
2) Decide on an ambitious, but realistic, **undergraduate recruitment target;** design and pursue a sustained **marketing strategy** to achieve that target.
3) Develop a **formal marketing strategy** in conjunction with Industry and other educational institutions which highlights the merit of a career in Computer Science to prospective students, parents and other interested parties in order to improve the numbers and quality of applicants for places on the courses.
4) Re-iterating the proposal contained in the 2003 review, we recommend that the proposed introduction of a 'greater **variety of degree titles'** should not proceed, but focus instead on building the quality and retention of students through the current Stream structure.
5) Set target numbers for a substantial **increase in MSc and PhD students**, as part of a balanced programme of growth in order to use resources more effectively, and leverage the research strengths of the Department.

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[1] A recommendation for greater student feedback in the 2001/2 quality review was apparently mis-read as a recommendation for anonymous examination marking.

6) Develop the **web-site** as a key promotion tool for the Department both nationally and internationally, making better use of multi-media skills, showcasing student/staff achievement and involving alumni.

7) Review the strategy of recruiting **Chinese undergraduates** to see whether it is an appropriate part of the overall recruitment strategy for Computer Science in both academic and financial terms, given the substantial additional overheads borne by the Department.

8) Consider ways of **more actively** recruiting **UK students given the cost increases proposed there**.

9) Address the current crisis in **demonstrator funding** by urgently seeking new sources of funding for this, and require all funded graduate students to contribute 6 hours per week of unpaid demonstrator time.

10) Review the range of undergraduate **course options** with a view to reducing them substantially, whilst maintaining a broad and balanced undergraduate programme.

11) Ensure that **student feedback** is routinely collected on all modules (possibly using an online system), and systematically considered by the Programme Director or a Course Review Committee.

12) Develop a more **strategic approach to research**, with the new Research Professor taking a leadership role in developing future research strategy across the Department.

13) Consider whether **greater collaboration** between research groups, in some form of umbrella research institute, would help to achieve greater visibility and build the national and international profile of the Department.

14) Actively pursue the plans for encouraging wider staff involvement in **research activity** developed in the Quality Improvement Plan, including carefully-designed and targeted internal Research Days.

15) The College is currently developing a **research output database** application for collecting and presenting evidence of research output. This application may benefit from some department design input to ensure it is robust and fit for purpose. Processes and procedures should be developed to ensure that relevant data is consistently collated, reviewed and uploaded to this application so that external parties can fully appreciate the breadth and depth of research activity being performed within the Department.

16) Ensure that the Computer Science **library book collection** is updated **immediately** to an acceptable standard for undergraduate and PhD level education, and routinely review book holdings annually so that adequacy is maintained (ensuring that students are consulted and involved in this process).

17) Consider a **temporary ceding of statutory rights** in order to explore the value of operating as a Statute L school and developing the role of Head of School.

18) Ensure that all Research (including PhD supervision, income generation and publication), as well as Leadership & Management contributions, are **recognised and valued** (in addition to direct-contact Learning and Teaching activities) in the application of Workload Allocation models, so that staff are positively encouraged and rewarded for engaging in R&D and providing leadership.

19) Ensure that the implementation of more formal **workload allocation practices** does not undermine or discourage the considerable voluntary effort currently present in the Department. This is essential to the maintenance of the very positive culture in the Department and should not be diluted by over-zealous accounting.

20) **Communicate with Staff** on the issues raised in the section on Communications.

University Recommendations:

21) Ensure that the financial mechanisms in place reward success in areas that help the university. In particular, ensure that the Department can achieve some **increase in its operating budget** through its teaching recruitment and research activities, even if it remains in deficit overall.

22) **Re-evaluate the RAM model parameters as outlined considering their effect on this department and the wider college.**

23) Improve **channels of communication** between Computer Science and senior management by ensuring that the Head of College (or other senior managers) meet with Computer Science staff on a yearly or more frequent basis.

24) Find ways to allow greater **access to the buildings** outside normal working hours.

25) In order to maintain and develop the core staff resource (academic and support) of the Department, the University needs to make available a reasonable annual budget for focused **training & development** in specific skill areas and academic leadership.

26) Consider whether the production of the **SWOT report** should be the responsibility of either an external facilitator or the ad-hoc Quality Review Committee.

Appendix A - Site Visit Timetable

DEPARTMENT OF COMPUTER SCIENCE

In Summary

Monday 22nd Nov: The Peer Review Group (PRG) arrives at the River Lee Hotel for a briefing from the Director of the Quality Promotion Unit, followed by an informal meeting with departmental staff members.

Tuesday 23rd Nov: The PRG considers the Self-Assessment Report and meets with departmental staff and student and stakeholder representatives. A working private dinner is held that evening for the PRG.

Wednesday 24th Nov: The PRG meets with relevant officers of UCC. An exit presentation is given by the PRG to all members of the department. A working private dinner will be held that evening for the PRG in order to finalise the report. This is the final evening of the review.

Thursday 25th Nov: External PRG members depart.

Monday 22 November 2010	
16.00	Meeting of members of the Peer Review Group Briefing by Director of Quality Promotion Unit, Dr. Norma Ryan. Group agrees final work schedule and assignment of tasks for the following 2 days. Views are exchanged and areas to be clarified or explored are identified.
19.00	Dinner for members of the Peer Review Group
21.00	Informal meeting for members of the Peer Review Group, Head of Department of Computer Science and Computer Science staff Department of Computer Science staff: Dr. Derek Bridge, Senior Lecturer Dr. Ioannis Dokas, Researcher Dr. John Herbert, Senior Lecturer Ms. Margot Holland, Part-time Advisor Programmer Dr. James Little, Researcher Dr. Barry O'Sullivan, Senior Lecturer Dr. John Vaughan, Senior Lecturer

Tuesday 23 November 2010		
08.30	Convening of Peer Review Group	
08.45	Professor James Bowen, Head of Department	
09.30	Group meeting with all departmental staff	
10.30	Tea/coffee	
11.00	**Private meetings with individual staff members**	**Private meetings with individual staff members**

	Group 1 *Mr. Shemas Eivers* *Prof Peter Jeavons* *Mr. Niall McAuliffe* 11.00: Michel Schellekens 11.15: Gregory Provan 11.30: Steve Prestwich 11.45: Derek Bridge 12.00: Joseph Manning 12.15: Dave Murphy 12.30: Martin Moriarty 12.45: Ann O'Brien	**Group 2** *Prof Gerard Lyons* *Dr. Kieran Mulchrone* 11.00: Margot Holland 11.15: John Vaughan 11.30: Dave O'Byrne 11.45: Simon Foley 12.00: Dan Grigoras 12.15: Barry O'Sullivan 12.30: Cormac Sreenan 12.45: Leslie Brookes

13.00	Working lunch
14.15	Visit to core facilities of School, escorted by Professor James Bowen & staff from the Department of Computer Science
15.00	Representatives of 1st and 2nd Year Students Mr. Teddy Boaz, 1st Year, BSc Computer Science Mr. Sean Kelleher, 2nd Year, BSc Computer Science Mr. Ross Lane, 1st Year, BSc Computer Science Mr. Gerard McCarthy, 2nd Year, BSc Computer Science Mr. Colm McLaughlin, 1st Year, BSc Computer Science Ms. Michelle Murphy, 1st Year, BSc Computer Science Mr. Shaun Wiseman, 2nd Year, BSc Computer Science
15.40	Representatives of 3rd and 4th Year Students Mr. Stephan Curran, 4th Year, BSc Computer Science Mr. Sam Fitzpatrick, 4th Year, BSc Computer Science Mr. Yishun Huang, 3rd Year, BSc Computer Science Ms. Zheng Huang, 3rd Year, BSc Computer Science Mr. Benjamin Jakobus, 4th Year, BSc Computer Science Mr. John O'Mahony, 3rd Year, BSc Computer Science Mr. Conor Roche, 3rd Year, BSc Computer Science
16.20	Representatives of Graduate Students Mr. George Boyle, Year 1, PhD Ms. Lisa Cummins, Year 5, PhD Ms. Geraldine Eberlein, MSc Interactive Media Mr. Will Fitzgerald, Year 6, PhD Mr. Ang Gao, Year 2, PhD Mr. Cathal Hoare, Year 8, PhD Mr. Tim Januschowski, Year 3, PhD Mr. Paul McNamara, MSc Software & Systems for Mobile Networks Ms. Lanny Sitanayah, Year 3, PhD
17.15	Representatives of stakeholders, including past graduate and employers Ms. Ruth Buckley, Head of Information Systems, Cork City Council Mr. Oliver Coughlan, Managing Director, Big Fish Games Ireland Ltd. Mr. Aidan Delaney, Senior Software Engineer, Quinn Healthcare Mr. Seán Finn, Coláiste Daibhéid, Post-Primary Teacher Ms. Helena Guiney, Past Graduate & Researcher, Oral Health Research Centre, UCC

	Ms. Fiona Herley, IS Manager, Musgrave Group Ms. Anahita Mohammadi, Senior Solutions Architect, EMC Mr. Robert Moloney, Senior Software Developer, Pilz Ireland Dr. Brendan O'Brien, CEO, Thinksmart Technologies Mr Donal O'Mahony, Christian Brothers College, Teacher Mr. Fintan Ronan, Engineering Manager, IBM Software Group Mr. Andrew Ward, Software Engineer, AspiraCon
19.00	Meeting of Peer Review Group to identify remaining aspects to be clarified and to finalise tasks for the following day, a followed by a working private dinner.

Wednesday 24 November 2010

08.30	Convening of Peer Review Group
08.45	Professor Paul Giller, Registrar & Senior Vice-President Academic
09.15	Professor James Bowen, Head, Department of Computer Science
10.30	Tea/coffee
10.45	Mr. Cormac McSweeney, Finance Office
11.00	<u>Senior Management</u>: Professor Peter Kennedy, Vice-President for Research Policy & Support, Professor Grace Neville, Vice-President for Teaching and Learning, Mr. Con O'Brien, Vice-President for the Student Experience
11.45	Professor Patrick Fitzpatrick, Head of College, Science, Engineering and Food Science
12.15	Preparation of first draft of final report
13.00	Working lunch
14.00	Preparation of first draft of final report
17.00	Exit presentation to all staff made by the Chair of the Peer Review Group, summarising the principal findings of the Peer Review Group. This presentation is <u>not</u> for discussion at this time.
19.00	Working private dinner for members of the Peer Review Group to complete drafting of report and finalisation of arrangements for completion and submission of final report.

Appendix B - Peer Review 2001/2002

QUALITY IMPROVEMENT/QUALITY ASSURANCE REVIEW 2001-2002

IMPLEMENTATION REPORT

Abbreviations

QPC: Quality Promotion Committee

	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
1.	That the planned new IT Building be provided as soon as possible	QPC endorsed recommendation. For action of UCC.	On hold	In July 2009 the Department moved to the new Western Gateway Building with state-of-the art facilities for teaching and research
2.	The committee structure should be re-examined with a view to possible organisation into a smaller number of larger committees with wider areas of responsibility.	QPC endorsed recommendation and welcome department's proposal to review current arrangements.	The Committee Structure of the Department has now been reviewed and changes are being implemented, with fewer, larger committees with wider responsibilities.	The Committee structures are due to be revised shortly to align with committee structures at college (SEFS) level.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
3.	Department should revise its Mission Statement, in particular to repair the omission of teaching and learning.	QPC endorsed recommendation and welcomed response of Department in undertaking to amend the mission statement of the Department accordingly.	This has been agreed at Department Staff Meeting and a revised mission statement is being prepared by Head of Department.	As per implementation
4.	The creation of a Deputy Head of Department post	QPC did not endorse this recommendation. If the Head of Department wishes to delegate responsibilities to staff within the Department this should be done without going through a formal process.	This was refused by College.	SEFS is now proposing that the post of Deputy Head of Department be created, albeit without any funding for the extra duties.
5.	Training of backup personnel for key administrative tasks should be instituted.	QPC endorsed recommendation.	This is in train. Administration of postgrad nominations and tax forms has been divided among staff. More staff being trained in mark entry system.	Several administrative staff familiar with DMIS. A manual in postgrad administration has been produced to aid staff.
6.	UCC should carry out a comprehensive review of the administrative support available for the Department.	The QPC referred this recommendation to the Department of HR for action.	The lay-out of the departmental office has been changed in order to group the administrative staff together in one area. HR to review admin support.	Department Manager appointed in 2002. Administrative support level now considered to be correct.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
7.	The administrative workloads of academic staff should be balanced and transparent	QPC strongly endorsed the recommendation and welcomed action by the Department	This year the workload was advertised to all and staff were invited to express preferences for their administrative roles within the Department. It was found that this was a more transparent arrangement.	The administrative workloads of academic staff will be revised shortly, when the committee structure is altered – see 2 above.

8.	4th year research projects
	• more evenly distributed among
	  the academic staff
	• use guidelines from SNCDC for assessment of projects
	• more projects in areas the Dept
	  wishes to develop research
	• greater equity in level of difficulty of projects
		QPC strongly endorsed recommendations 8 and 9. The Committee considered these recommendations to be very serious and very important. QPC wishes to see substantial improvement in these areas in the one-year follow-up review. QPC strongly endorse the recommendation that the SNCDC guidelines on project assessment be used, and that equity in the level of difficulty of projects be achieved. QPC considered that it is essential to have a core module element to the final year programme and wishes to see action on this recommendation as soon as possible.	The value of the 4th year project has been reduced from 20 credits to 15
			credits, and it therefore plays a less significant component of the final
			results. Our marking scheme complies with SNCDC guidelines. We allow some flexibility to vary the precise marking scheme depending on the type of project. As well as marks breakdown,
			we require a full report to provide details of the project and justification
			for the grade.
				As per implementation.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
9.	Decrease range of options in 4th year, including designation of core modules taken by all students to maximise numbers and facilitate benchmarking of assessment		The Department did reduce the range of Fourth Year options. There is no support for a core module within the Department.	As per implementation.
10.	All examinations should be anonymously evaluated.	QPC endorsed recommendation and noted that introduction of anonymous marking in all written examinations in the university is in line with the policy of the GB and the AC. It is planned to introduce anonymous marking of all written examinations in 2002/03 and support systems are being put in place to assist in this.	This is currently being implemented by UCC. The Department agreed to be one of several pilot departments for this College anonymous marking scheme.	This is now implemented university-wide.
11.	That the proposed introduction of a 'greater variety of degree titles' does not proceed.	QPC endorsed recommendation.	This is a point of confusion as the Department did not propose or support a greater range of degree titles.	The Department has one CAO intake to the BSC Computer Science, which offers four different stream choices. However, we plan to investigate whether it would be wise to continue like this or to introduce extra CAO course numbers.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
12.	Each course or module that has associated laboratory hours should also have assigned by the Department an associated minimum schedule of visits by the academic staff involved in its delivery.	QPC endorsed recommendation and noted that this is a matter of good academic practice.	Academic staff have complete responsibility for their course and related laboratories. This includes a minimum number of lab visits as necessary.	Academic staff deliver all lab sessions. It should be noted that the difficulty of doing this well with large groups of students has been exacerbated by the recent cuts in our operating budget, which prevented us from having any paid demonstrators in '09/'10.
13.	That teaching workloads be balanced across all staff in a transparent manner.	QPC endorsed recommendation and noted that this is a matter of good practice.	This has been done.	An ad hoc committee formed in 2010 re-examined this process. Their recommendations were used in assigning teaching loads for '10/'11.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
14.	That an overall research strategy be developed by Department, including: identification and development of future directions in CS research. The new appointments, recently approved, should be targeted at selected areas (such as systems and networks, databases, multimedia, parallel and distributed computing, and programming languages). Clustering of research areas should be encouraged.	QPC strongly endorsed recommendation and welcomed response of the Department	The Department has now identified targeted areas. The Department research strategy will be supported in time by income from research overheads. To date, the Department has not received any SFI research grant overheads.	The Department has recently undergone a Research Quality Review and was rated as excellent.

	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
15.	A programme of regular research seminars by and for postgraduate students should be developed. The Department should aim to become more visible within UCC, and nationally and internationally.	QPC strongly endorsed recommendation. The seminars should be instituted immediately and advertised widely, both within and outside the institution. The seminars should be aimed at postgraduates and others who are not necessarily experts in the particular topic covered in the seminar. Seminars should be organised on a monthly basis, at a minimum, and be accessible to all who might wish to attend. The QPC requested a report by the end of November next on the progress made by the Department in implementing this recommendation.	The Department has taken steps to include postgraduates in existing seminars, including reducing length of talks to 25 minutes, making them less formal and more accessible, and advertising them widely, including in EOLAS. Research students are scheduled to give a talk on a regular basis, and attendance at the seminars is compulsory for research students.	Now that the Department has almost completely settled in to the new building, we will take advantage of the co-location to improve our research seminar programme.
16.	Income from targeted initiatives should be used to develop a programme for researchers to visit the Department and work there for relatively short periods of time.	QPC endorsed recommendation and noted that the Dean of Science had assured the PRG that funds from skills initiatives programmes would be assigned to the Department shortly.	Skills monies are used entirely for running programmes. There are no slack monies with budget decreasing each year.	The current budget levels make this impossible.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
17.	Academic staff should take part in UC training courses, and new staff should be particularly encouraged to attend those related to teaching.	QPC strongly endorsed recommendation. Many new initiatives in relation to development of teaching methodologies are being developed within the university. The input and participation of staff from the CS department would be welcomed.	Staff are attending, and are being encouraged to attend, training courses.	Staff are attending in-house courses, but with current budget cutbacks it is not possible to fund external courses or conference trips.
18.	CS staff should continue to be at the forefront of initiatives in web-based teaching and learning.	QPC endorsed recommendation.	The Department agrees with the recommendations and is encouraging staff to be at the forefront in these initiatives.	Department staff continue to explore the advantages and disadvantages of web-based teaching and learning.
19.	A training budget should be available for the systems support staff.	QPC endorsed recommendation and welcomed action taken by the Department to put in place a training budget for systems support staff.	Done	In 2002-2006, a training budget was put in place for systems support staff, but this is no longer possible with the budget cutbacks.

	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
20.	A UCC-wide Group for the systems support staff of all departments should be set up. This group should be initiated by the CS staff.	The QPC welcomed the report from the Department that the CS systems support staff have initiated the creation of a UCC-wide forum for systems support staff. The QPC requested a report by the end of November next on progress on the forum..	This was initiated by the Department. The purpose of the meetings was to provide a forum for discussion and sharing ideas and experience for systems admin who might be in some cases working in isolation in some departments. In some areas Computer Science might be ahead of the curve and in others we benefited from other departments' knowledge. One of the benefits was learning how similar work is done in other departments, practical approaches to, for example, cloning a lab, etc. We also had wide-ranging discussions on all aspects of computing systems. For example, as a result we worked together on a licensing deal which saved the Department buying this very expensive package; shared knowledge on packages for which we have site license that others outside the Dept. would not always be aware of; shared ideas on attacking spam and different approaches to this. For example, we deployed spam filtering software as a result of discussion from one meeting.	As per implementation

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
21.	The induction of new staff, both academic and nonacademic, should be undertaken, and must include a familiarisation with regulations and M&S.	QPC noted that there currently exists an induction programme for new staff.. The Head of Department should ensure that new staff attend the induction seminars. QPC recommended to the Department of Human Resources that this induction programme be made mandatory for all new staff and that this should be written into the contract of employment for all new staff.	All new staff are advised to attend the Induction programme which is run by Human Resources.	As per implementation. With the current recruitment embargo, this is not relevant.
22.	Academic staff should become more involved in UCC academic life by taking part in university committees and sharing the administrative and other burdens.	QPC endorsed recommendation. QPC commented that there is a broad spectrum of university activities, not just Science Faculty committees, and the involvement of CS staff would be welcomed.	Members of staff are involved in Academic Council and other College Committees – list available. Staff are actively encouraged to participate in these activities.	CS staff are actively involved in several university-level committees.
23.	A certain amount of money be allocated on a competitive basis from the Department budget for travel.	QPC endorsed recommendation.	We have implemented this but, given current budget, the money available is negligible.	This is not possible due to budget cutbacks.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
24.	The Department should actively pursue research collaborations external to itself, particularly with industry.	The QPC accepted the departmental response that the "Department has extremely strong links with industry through our Work Placement programme – there are over 100 companies that actively participate in this programme, and our academic staff visit all the placed students and their managers in these companies each summer. We deeply value industry interaction, and recognise that a greater level of research-related industry interaction is desirable. In line with our overall plans to increase research activity, we expect the number of research links with industry to also increase." QPC looks forward to seeing an increase in research activities in this area in the follow-up review in one year.	We have received funding from various sources, and staff are actively collaborating with other universities and industry, including such companies as: Xerox FEXCO Cadict Group IRCSET Cadcoevolution AT&T (USA) Comnitel - see attached list. While Dr. Barry O'Sullivan's CSet proposal was unsuccessful, it received a lot of positive support from industry. We have recently been offered by IBM Ireland a free lap-top for the best final year student project. The Department has been very active in hosting and organising international conferences, some of which have been sponsored by industry, including Microsoft.	The Department is very research active, as indicated in our recent Research Quality Review.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
25.	The Department should consider acquiring IEI accreditation	QPC recommended that discussions take place with the Registrar of the IEI. QPC requested that the Department report back by the end of November 2002 on the outcome of the discussions.	Informal discussions have taken place.	This is still being considered but, as it has implications for our policy on the math ability of the first year intake, we have not yet decided to progress the matter.
26.	The Department should be provided with a LAN that is a bridge off the campus LAN and over which it has control.	QPC endorsed recommendation. Department should propose what action is necessary to the appropriate body in UCC.	This is under discussion with Computer Centre who have agreed to setting up a 'VLAN' of nominated ports. Decisions need to be made on which ports are required on this and what sort of access to the college network to provide. Future discussions will focus on policy.	As per implementation
27.	The time periods during which staff and students have access to laboratories should be extended.	QPC requested specific proposals from the Department in relation to this recommendation, noting that access to computer laboratories is already available outside normal working hours.	Labs are open between 9 a.m. – 10 pm. The Department would be happy to provide 24 hour access, but this is beyond the control of the Department.	The Western Gateway Building is only open from 8.00 a.m. – 10.00 p.m. This is something over which we have no control.

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	Finding/Recommendation of PRG	Comment/Recommendation of QPC	Implementation – October 2003	Implementation Report – November 2010
28.	Department should ensure the most appropriate journals are acquired by the Library, and that the monies available for books are used to the fullest extent.	QPC endorsed recommendation.	The Department regularly reviews the journals acquired on our behalf (typically every 18 months). We typically also always spend all of the monies available for books.	As per implementation
29.	Departments should be told their finance allocation by the beginning of each academic year.	This has now been implemented by UCC.	In place and advised monthly to all Department staff.	Budget Allocation is normally advised in October/November, but can be adjusted during the year (increased or reduced).
30.	Improved quality of maintenance of common areas and quicker response to requests for maintenance from the Buildings Office and the Computer Centre are desirable.	For action by the Buildings Office and the Computer Centre.		Excellent support from Buildings & Estates, and Computer Centre.

October 2003
&
November 2010