Quality Assurance / Quality Improvement Programme for Academic Units

2002-2003

Peer Review Group Report for the School of Computing*

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* The School of Computer Applications was renamed the School of Computing by decision of Executive on 13 May 2003

Introduction

This Quality review has been conducted in accordance with a framework model developed and agreed through the Irish Universities Quality Board (IUQB) and which complies with the provisions of Section 35 of the Universities Act (1997). The model consists of a number of basic steps.

1. An internal team in the School/Unit being reviewed completes a detailed self-assessment report (SAR). It should be noted that this document is confidential to the School and to the Review Panel and to senior officers of the University
2. This report is sent to a team of peer assessors, the Peer Review Group (PRG) – composed of members from outside DCU and from other areas of DCU – who then visit the School/Unit and conduct discussions with a range of staff, students and other stakeholders.
3. The PRG then writes its own report
4. The School/Unit produces a School/Unit Quality Plan in response to the various issues and findings of the SAR and PRG Reports.
5. The PRG Report and the School/Unit Quality Plan are considered by the University Executive, which makes a formal response to both, after consultation with the School/Unit and the Director of Quality Promotion. The School/Unit Quality Plan and the Executive Response become incorporated into what is termed the Quality Improvement Plan (QuIP)
6. A summary of the PRG Report and the QuIP is sent to the Governing Authority of the University, who may approve publication in a manner that they see fit. The summary report will then be published on the Quality Promotion Unit website.
7. Following the approval of the summary report by the Governing Authority, the full text of both the Peer Review Group Report and the Quality Improvement Plan are published on the Quality Promotion Unit website.

This document is the report referred to in Step 3 above.

1   Profile of the Unit

Location of the Unit
The School occupies a relatively new building (1992, extended in 1999), which houses academic staff offices, under-graduate and post-graduate labs, and administrative and technical staff. There are 11 student laboratories, containing over 500 PCs, and c. 120 staff/research student workstations. The School LAN has a gigabit backbone with a 2Gb channel to each lab, and 100Mb to each desktop. There is also a wireless LAN facility. High performance servers are available for systems operation and research use. The facility is modern and suitable for its purpose.

Staff

Academic staff	- permanent	35
	- temporary	2
Administrative staff	- permanent	1
	- temporary	0.5
Technical staff	- permanent	4
	- temporary	2
Research staff (postdoctoral)		3

<u>Product / Processes</u>

The School's central activities of teaching and research are managed by the Head of School in conjunction with the Chairpersons of the Degree programme boards and by means of a committee system.

Teaching: The School is solely or jointly responsible for 9 programmes at undergraduate and postgraduate levels. The School also contributes to an undergraduate programme in DCUBS at 2nd year level. Details are shown in the table below.

	Programme	School involvement	Total numbers	Full-time Equivalents
Home degrees	B.Sc. in Computer Applications	Full	824	822
	B.Sc. in Computer Applications (Evening)	Full	81	41
	Graduate Diploma / M.Sc. in Information Technology	Full	96	130
	Graduate Diploma / M.Sc. in Computer Applications	Full	3	3
	Graduate Diploma / M.Sc. in Computer Applications for Education	Full	4	4
	M.Sc. in Security and Forensic Computing	Full	(planned for 2003)	
Shared Degrees	B.Sc. in Applied Computational Linguistics	Joint with SALIS	60	30
	B.Sc. in Mathematical Sciences	Joint with Maths	53	13
	M.Sc. in Electronic Commerce	Joint with DCUBS	46	52
	M.Sc. in Electronic Commerce	To be delivered off-campus in CityWest Business Campus, starting 2003		
	M.Sc. in Bioinformatics	Joint with Biotech	(planned for 2003)	
Service Teaching	BA in Accounting & Finance	3 modules	128	16
	B.Sc. in Financial & Actuarial Mathematics	5 modules	65	17
	B.Sc. in Applied Physics	2 modules	20	3
Research	MSc and PhD by research		56	168
		TOTAL		**1299**

Research. There are four research groups within the School:

- Dependable Systems
- Modelling & Scientific Computing
- Information Management
- Language & Intelligence

Members of the Information Management group established and direct the Centre for Digital Video Processing, a University Designated Research Centre (UDRC) of DCU. Members of the Language and Intelligence group established and direct the National Centre for Language Technology.

Within these groupings staff either work co-operatively or pursue their own individual lines of research, depending on circumstances. As a result, the degree of cohesion within the groups appears to vary from one group to the next.

2   The Self-Assessment Process

The Co-ordinating Committee

Mr. Howard Duncan, Lecturer (chair)
Prof. Alan Smeaton, Dean of Faculty
Prof. Joseph Morris, Head of School
Prof. Tony Moynihan, Professor
Dr. David Sinclair, Senior Lecturer
Mr. Renaat Verbruggen, Lecturer
Dr. Cathal Gurrin, Post-doc
Ms. Mary Hearne, Research Student

Methodology Adopted

The Co-ordinating Committee was formed in February 2002. The composition of the committee, as given above, was designed to give a balance between full representation of all the constituencies in the School, and having a committee of workable size. Representatives of the School secretariat and the Technical Support services were not included, but were consulted at suitable points in the programme to provide specialised input.

Three meetings were held in the spring of 2002 to select a panel of Peer Reviewers, and to plan the review process for the rest of the year. From November 2002 meetings were held weekly.

The co-ordination of the review was the responsibility of Mr. Howard Duncan. Dr. David Sinclair represented the research interest in the School, and contributed the material on research. Mr. Renaat Verbruggen, as Chair of the main undergraduate programme, represented the teaching interest. Prof. Tony Moynihan and Prof. Alan Smeaton contributed experience of the review process. The remainder of the committee represented the aspects of the School indicated by their descriptions.

From November 2002 the committee undertook fact-gathering exercises, as a basis for the review. Focus groups were held with each year cohort of the undergraduates, with the postgraduates, and with employers of graduates. A survey of alumni was undertaken.

In February 2003 an "away day" was held, which was attended by almost all staff.

3   The Peer Review Group Process

Methodology

The Review process consisted of three discrete activities:

1. Familiarisation with the self-assessment report provided by the School in advance of the site visit.

2. The comprehensive site visit, conducted over a period of three days, to review and validate the details of the self-assessment report.
3. The preparation and delivery of this review report documenting the findings and making recommendations for future development.
4.

<u>Overview of the Site Visit</u>

The PRG met with the Director of the Quality Promotion Unit for an initial briefing on the evening of 19th March 2003, at which time key tasks were identified and a Chairperson agreed. This meeting was followed by an informal dinner with the Head of School and members of the School's Quality Co-ordinating Committee, which was useful in terms of enabling the PRG to familiarise itself further with the work of the School.

On the morning of 20th March, the PRG reviewed the contents of the self-assessment report with the Head of School and members of the School's Quality Co-ordinating Committee. Some additional documentation was requested. Most of this was quickly provided. However, the "Strategic Research Plan 2001-2005", referred to in "Leading Change: DCU Strategic Plan 2001-2005", could not be located.

The PRG had separate meetings with two further groups of academic staff (one concerned primarily with research issues and the other concentrating on teaching-related issues) and with technical and secretarial staff. These meetings served to broaden the PRG's understanding of the issues raised by the self-assessment report. In the afternoon, the PRG met with student representatives. These ranged from first year students to research postgraduates.

Both staff and students provided ample information and comment on the activities of the School. The bulk of the comments made were positive, although both staff and students also offered some suggestions for improvements which, in the main, are reflected in the Recommendations contained in this report.

The PRG met with senior University management on 21st March. Those present included the President, Secretary, Registrar, Director of Finance and Director of Human Resources. Dr Barry McMullin then accompanied the three external members of the PRG on a visit to the O'Reilly Library where they met with the Director. This was followed by a visit to the School's teaching facilities and computer laboratories, and further discussions with the Head of School and a small number of other academic staff. The day concluded with a presentation to the School by the PRG, in which the main points of this Report were outlined.

<u>Site Visit Programme</u>

Day 0 (Wednesday 19 March 2003)

18.00 – 19.30   Meeting of members of the Peer Review Group and briefing by Director of Quality Promotion, Dr Padraig Walsh.
20.00   Meeting over dinner with Head of School and School Quality Co-ordinating Committee.

Day 1 (Thursday 20 March 2003)

09.00 – 09.30   Convening of Peer Review Group in the School.
09.30 – 13.00   Consideration of Self-Assessment Report with School Quality Committee and inputs from other School staff.
13.00 – 14.00   Discussion with the Director of Quality Promotion followed by working lunch.
14.00 – 17.00   Meetings with groups of students.

| 17.30 – 18.30 | Meeting of Peer Review Group to review issues raised. |

Day 2 (Friday 21 March 2003)

09.00 – 09.45	Meeting with President, Deputy President, Registrar, Secretary and Director of Finance.
09.45 – 10.30	Visit to O'Reilly Library, meeting with the Director of Library Services and the CA Subject Librarian.
10.30 – 11.00	Visits to facilities including Lecture Theatres, Computer Laboratories and Postgraduate Research Area.
12.30 – 13.00	Meeting with Head of School.
13.00 – 14.00	Discussion with the Director of Quality Promotion followed by working lunch.
14.00 – 16.00	Review of issues and preparation of presentation to School.
16.00 – 16.30	Exit presentation to all staff of the School by the Chair of the Peer Review Group.
16.30 – 19.30	Meeting of Peer Review Group to review issues raised and agree schedule for preparation of Report.

Review Group's view of the Self-Assessment Report

The PRG found the self-assessment report extremely useful and informative. It was generally well-structured, comprehensive and accessible. While it provided ample detail on the School and its activities, the PRG felt that it could have addressed more clearly the following two areas:

- The issue of the distinction, or lack of distinction, between those academics who are research-active and those who are not research-active or only minimally active. Not all academic staff had associated research statements. Of these statements, some were quite extensive while others were confined to one or two lines. It was not clear what significance, if any, these discrepancies might have.

- The important role played by technical staff in this School. Given the School's dependence on technical staff, and given the evident strength of this area in the School, the PRG felt that the role of the relevant staff-members could have been made clearer in the self-assessment report and that they could have been more involved in the Quality Review process itself.

However, there were many positive points about the self-assessment report, including the large amount of detail provided and the convenient way in which the information was presented, including, for example, an excellent breakdown of teaching and administrative responsibilities.

4   Findings of the Review Group

Background and Context

Overall, the Review Group found that the School of Computer Applications compares well against national norms. Teaching is particularly strong, and there is evidence of substantial, and growing, research activity earning an international profile. The School is developing against a background of sharply constrained public investment, and exceptional volatility in demand for undergraduate programmes. In this challenging context, the staff of the School have shown considerable flexibility and initiative, combined with a clear commitment to maintaining academic quality and standards.

Organisation and Management of the Unit

The School of CA is in transition as it is shortly to be merged with the Schools of Electronic Engineering and Mechanical and Manufacturing Engineering in a new executive Faculty structure. The restructuring that will be associated with the merger has not been formally or clearly articulated/communicated. This lack of clarity on future structures has led to some gaps in the organisation structure and uncertainty in roles and responsibilities. This said, it is a positive feature that the research resources of the School have been recently re-organised into four distinct groups.

The administrative work of the School is being severely hampered by the failure to fill the vacant post of School Manager. The extra workload has fallen in large measure to the Head of School, particularly the preparation of funding submissions and administration of recruitment. While some efforts had been made to fill the post, a suitable candidate was not identified. The PRG understands that this position may currently only be filled on a short-term contract basis. This situation must be corrected urgently.

It has been stated that there is a formal strategic plan for the School. However, there is evidence that the strategy has not been well communicated and therefore may be poorly understood or supported. This has contributed to a lack of clarity on administrative/management structures - e.g., replacement of the research committee. This in turn appears to have led to some ad hoc mechanisms and work practices. Some staff perceive that School meetings are not as frequent as heretofore; given the pace of change, more may be warranted on a regular basis.

The PRG was impressed with the academic workload allocation process, which has been recently revamped and appears very transparent.

Programmes and Instruction

The PRG concurs with the view expressed by the School that the current Student-Staff ratio is excessively high, particularly given the specific pedagogical needs of this practical discipline. Large class sizes militate against effective staff-student communication and feedback, and generate an unduly heavy staff workload in student assessment. The current staffing ratio compares unfavourably with best practice on an international basis.

The willingness of CA staff to engage in substantive reviews of the teaching programmes is a very positive aspect of the School. However, programme boards appear to have become an obstacle to innovation. Agreement reached during School meetings can be overturned via programme boards. Such organisation leads to the potential for conflict between School strategy and programme board decision making. This issue requires review at University and Faculty levels. On the other hand, the appointment of year-heads is working well. This structure provides students with a clear point of contact for problem resolution.

In the context of School strategy, there is a need for the School to pro-actively address the implications of the Bologna process.

The School has an excellent teaching record and there is a positive learning climate. Lecturers use innovative approaches to teaching, despite high student-staff ratios. Examples include the use of Web-CT, the provision of online lecture notes, and the

use of electronic messaging. Several lecturers have competed successfully within the University for grants and fellowships in the area of teaching and learning. However, although surveys of student opinion of teaching are conducted, results are not communicated consistently to School management. An opportunity for teaching improvement is thus lost.

With the increasing emphasis on research there is a danger that good teaching may become under valued and that good programmes may become neglected. The value of good teaching should not be overlooked in the promotion process.

There appear to be some serious communication problems for students of the Graduate Diploma in IT programme. There was no induction or orientation for these students. This has been a particular problem because these students typically come from other institutions and have no prior familiarity with DCU. They were not aware of any mechanism for them to feed back views or ask advice about the programme. These students noted that there was a lack of practical, hands-on, activities in their modules, contrary to their expectations based on the programme documentation. On the other hand, while they complained about lack of information and problems with scheduling, they had no complaints regarding the quality of teaching.

The taught MSc in CA programme displays good flexibility, while students also think very highly of the MSc in eCommerce programme.

The future of the ACL programme needs to be assessed. The take up of the degree is small, and the resource requirements are accordingly disproportionately high. Graduates of this programme commented that it did not prepare them for a career as it was too broadly focussed. They said that they would have preferred to have taken the core CA programme with the addition of a significant language component and the possibility of spending a year abroad. Students noted that they found the year abroad extremely valuable.

The SE and IS streams of the CA programme need to be more clearly differentiated. There is currently too much commonality of modules between the two streams. The differences should be made explicit and communicated more clearly to stakeholders, especially prospective employers.

There was general consensus that the INTRA programme was very beneficial both academically and in terms of career prospects.

Third and fourth year undergraduate students complained about the quantity and scheduling of project work. They felt that there was no co-ordination within the School regarding due dates and that most projects were due simultaneously. As a result they reported being frequently unsure how or where to focus their energies. The School should attempt to improve co-ordination of assessment, and rationalise the overall assessment load where feasible (in the interests of both students and staff).

First and second year students appreciated the definite timetables of lab exercises during the semester. They suggested that compulsory attendance at lectures and labs was a positive advantage in managing the transition from secondary education. Some students reported difficulties in relation to their timetabling - for example, back-to-back classes scheduled some distance apart on the campus.

More generally, among some academic staff, the process of semesterisation per se is perceived to have significantly increased the teaching workload without corresponding learning benefits.

Some of the tutorials do not appear to be working as well as they should. Students complained that some tutors were ill prepared. Postgraduate students suggested that they were not necessarily selected to conduct tutorials in areas in which they were best qualified.

Scholarship and Research

This evaluation took place within the context of substantial changes occurring in the structure of the University from the highest level down to the level of the School. Some of the issues raised here will presumably be addressed in the course of this strategic restructuring process. Nonetheless, the current state of flux has led to uncertainty and not a little frustration. A particular concern was the lack of any explicit foregrounding of computer science and software engineering in the research themes developed as part of the University strategic plan. There was also disappointment at the apparent poor return on the considerable investment of effort by the School in contributing to the University level strategic planning process.

The recent consolidation of the School's research activities into four distinct research groups is viewed by the PRG as a welcome development. We believe this is already having positive effects on the work of research postgraduate students. For example, the revised physical layout along research group lines is conducive to mutually supportive interactions among postgrads.

The PRG felt it important to emphasise the need for staff to increase their rate of journal submissions. With the advent of electronic archiving of papers, the slow response rate of journals is no longer an impediment to dissemination. In the case of conference submissions, we endorse the current Head's emphasis on targeting high-calibre peer-reviewed conferences and workshops. It would also be useful if the School set up a shared archive or library of research project submissions.

The School and the University are to be commended on the constructive sabbatical and travel support policy. Many staff commented favourably on its benefits. Of particular merit was the opportunity for staff to re-invigorate their research activities using these mechanisms.

The PRG was impressed by the quality of postgraduate student supervision. However, graduates from the DCU CA programmes identified a need for explicit training in research skills, or a greater emphasis on these at undergraduate level. In particular, some new postgraduate students felt that there were shortcomings in their ability to critically evaluate research, to design and analyse experiments, and to write their own research papers.

Overall, the PRG felt that research activity and the structures supporting it in the School are operating well and developing in a very positive direction.

Social and Community Services

A noteworthy success of the School has been the initiatives taken to enable students from disadvantaged backgrounds to enter DCU programmes, and the ongoing assistance given to them by certain individuals in the School. However, contribution

in this area generally remains at the level of the individual. The School could consider how this work might be supported and given greater recognition.

The provision of the part-time evening CA programme constituted a significant contribution to second-chance education. There was no intake to this programme in the current academic year. The reasons for such low take-up should be investigated further. However, the PRG is pleased to note that the School has secured funding to support significant redevelopment of the programme into the future.

There appears to be inadequate co-ordination between the School and the National Centre for Distance Education at DCU (Oscail) in the provision of part-time and/or distance-education programmes in computing and information technology. There is clear potential for significant collaboration in this area.

<u>Staffing, Accommodation and Resources</u>

Computing education and research depends critically on advanced, and continuously updated, technological infrastructure. The PRG found that the core facilities available in the School were of a very high standard, and uniformly recognised as a strength. The only point of concern was that the schedule for continuing equipment replacement had recently been delayed due to immediate budgetary pressures. This should be kept under careful review.

The centrally provided facilities - lecture rooms etc. - were considered to be adequate. Some improvement may be possible in co-ordination and timetabling with the central administration.

The University policy on "out-of-hours" access to buildings and facilities is perceived as overly restrictive and bureaucratic, and therefore an impediment to the most effective use of expensive resources. The PRG acknowledges that the University is subject to significant statutory and operational constraints in the area, but advocates further critical evaluation in consultation with the affected stakeholders.

The library is located in a modern custom-designed building with excellent facilities. The services provided to students and staff appear to be of a very high standard, with good channels of communication to the School. The PRG would encourage early collaboration between the School and the Library in the area of open-archive scholarly publication.

The level of secretarial and administrative support currently available in the School was found to be inadequate and a matter of significant concern. This is an issue that should be addressed as a matter of some urgency, both at the School level and in the context of the pending Faculty level reorganisation.

While the technical support team in the School is currently below its allocated staffing level, the quality of service is very highly regarded and appears to be working very effectively. However, because of the unfilled positions, help desk hours have been cut back. It is clear that the technical staff are currently working at maximum capacity. Our concern is that they can only continue to do so for a very limited period of time. It is essential that the vacant technical positions are filled.

There is a significant gender imbalance in the staffing of the School. This is especially evident in the profile of academic seniority. While this can only be addressed over an extended time frame, the PRG would wish to see an articulated plan in place, with clear and measurable goals.

There are limited opportunities for informal interaction between staff and students. While the CA building has some informal social areas, it seems that these could be made more effective through modest further initiatives (provision of tea/coffee making facilities etc.).

5 Overall Analysis of Strengths, Weaknesses, Opportunities and Concerns

<u>Organisation and management</u>

Strengths
- Strong management support for School research activities.
- Transparent workload allocation.

Weaknesses
- Lack of administrative support for School management.
- Limitations in communication between School management and academics.

Opportunities
- Faculty restructuring is an opportunity for positive developments in administration and management.

Concerns
- Urgent need for closure on Faculty restructuring.
- Need for more rapid implementation of new administrative structures within School.

<u>Programmes and instruction</u>

Strengths
- Innovative and effective teaching despite poor student-staff ratio.
- Year-head system working well.
- ACL year abroad and INTRA works well.
- Development of flexible part-time MSc programmes.
- Maintenance of academic standards in BSc CA despite reduced demand.

Weaknesses
- Programme Boards an obstacle to progress.
- Problems with Graduate Dip in IT.
- Quantity & scheduling of project assessments needs review.
- Some issues around quality and organisation of tutorials.
- SE & IS streams in CA degree need to be more clearly differentiated, especially externally.
- Student feedback not communicated consistently to management.

Opportunities
- Expansion of industrial related, part-time postgraduate programmes.
- Collaboration with Oscail on distance education programmes.
- Creation of BSc CA stream with language component, including year abroad.

Concerns
- The future of the ACL programme needs to be critically assessed.

-Falling demand for School undergraduate programmes.
-Reduced employment opportunities for School graduates.
-Global trend toward outsourcing of software development to lower cost
   economies.

Scholarship and Research

Strengths
-School research group structure working well on the whole.
-Increased emphasis on research is a positive development.
-Good sabbatical/travel support policy.
-Good supervision of research postgrads.

Weaknesses
-Too few journal publications.
-Not enough focus on high-calibre, peer-reviewed conferences.
-Insufficient administrative support for research proposal writing.
-Research skills programme needed for research postgrads.

Opportunities
-Improved national research funding climate.
-Consolidation of research activity based on the newly formed research groups.

Concerns
-Planned new courses will give rise to increased teaching and administrative
   loads.

Social and Community Services

Strengths
-School has pioneered community access to education.
-Evening BSc (CA) degree is an important contribution to 2nd chance learning.

Weaknesses
-Contribution tends to be on an individual basis - there's a need for more School
   support.
-Apparent weak take-up on Evening BSc (CA).

Opportunities
-Scope for more collaboration with Oscail.

Staffing, Accommodation, & Resources

Strengths
-Impressive library resources.
-Excellent infrastructure within School.
-Excellent technical support.

Weaknesses
-Seriously inadequate School administrative support.
-Poor student-staff ratio by international norms.
-Out-of-hours access policy in need of review.
-Significant gender imbalance in staff.
-The absence of formal training policies needs analysis; there is a need for active
   personal development.

-"Glass ceiling" for promotion of staff specialising in teaching.
-Lack of facilities for informal postgraduate staff/student networking.
-Unfilled technical support positions.

Opportunities
-E-archive as a tool for research dissemination.
-Facilitation of staff-student interaction through provision of appropriate common area.
-Further development of industrial consultancy.

Concerns
-Difficulty in adhering to equipment upgrade schedule.

6   Recommendations for Improvement

Recommendations are organised by the same divisions as in sections 4 and 5 above. To facilitate planning of quality improvement measures, each recommendation has been qualified by an indication of priority as follows:

- P1: A recommendation which is important *and* requires urgent action.
- P2: A recommendation which is important, but can (or perhaps must) be addressed on a more extended timescale.
- P3: A recommendation which merits serious consideration but which is not considered to be critical to the quality of the ongoing activities in the School.

Additionally, the PRG has attempted to indicate the level(s) of the University where action is required:

- S: School of Computer Applications
- F: Faculty of Engineering and Computing (when constituted)
- U: University Executive/Senior Management

Where considered appropriate, action at multiple levels is recommended: this should be considered as inclusive, indicating a need for co-ordinated, complementary, actions at *all* the indicated levels (rather than, e.g., at "any one level").

Organisation and management

- **P1-U: Expedite/complete the Faculty re-structuring.**

- **P2-SF: Prepare written strategic plans at both School and Faculty levels. Ensure that this is effectively communicated among all staff. Monitor and update on a rolling, annual basis.**

- **P2-S: Complete re-organisation of structures within School. Schedule regular School meetings. Clarify research support and development roles.**

- **P2-SFU: Critically review programme board system.**

Programmes and instruction

- **P1-S: Review the operation of the GD/IT programme.**

- **P2-S: Critically review future of ACL programme.**

- **P2-S: Clearly "brand" the two BSc in CA streams for the benefit of students and employers, paying special attention to the need to avoid any perception of disparity in academic quality.**

- **P2-SF: Investigate opportunities for flexible, online, distance based provision; explore possible synergies with Oscail.**

- **P2-SFU: Enhance systems for gaining regular feedback on the student experience in all programmes.**

- P3-SF: Develop an integrated, strategic, approach to the overall module and programme portfolio, both undergraduate and postgraduate.

Scholarship and Research

- **P1-S: Focus research publication on peer-reviewed journals and high quality peer-reviewed conferences. Promote early parallel dissemination through open e-print archives (in collaboration with Library). Incentivise these policies (e.g., via local funding supports and the workload allocation scheme).**

- **P1-SFU: Introduce dedicated administrative support for preparation of external research proposals.**

- **P2-SF: Provide formal research skills training for new postgraduate research students.**

Social and Community Services

- **P1-SF: Develop more flexible access provision to better facilitate and support students from disadvantaged backgrounds. Explore possible collaboration on this issue with Oscail.**

- **P2-SFU: Make a co-ordinated effort to develop and recognise social and community service. Reflect this in strategic plan(s).**

Staffing, Accommodation, & Resources

- **P1-SFU: Address the serious shortfall in administrative staffing as a matter of urgency. This minimally requires the appointment of a senior administrator plus a second full time secretary. This is imperative to avoid dissipating the energies of the Head of School in administrative tasks to the detriment of the strategic drive that is essential to the development of the School.**

- **P2-SFU: Explore all feasible means, institutionally and nationally, of improving the student-staff ratio to reflect relevant international norms.**

- **P2-S: Review the adequacy of the complement of the technical support team to ensure that it is not over-extended.**

- **P2-SF: In the context of strategic planning, develop concrete initiatives and measurable goals to address gender imbalance.**

- **P2-S: Adhere to hardware/software refresh schedules.**

- P3-SFU: Support all staff in planning personal development. Articulate explicit career pathways for academic staff specialising in teaching.

- P3-SFU: Review current out-of-hours policy with a view to making it more researcher and student friendly.

- P3-S: Provide enhanced facilities for informal networking among staff and postgraduate research students.