

FACULTY OF PHARMACY

**ACADEMIC BOARD VISIT TO
REVIEW TEACHING, LEARNING AND
RESEARCH TRAINING**

THURSDAY 3 OCTOBER 2002

**FINAL REPORT AND
RECOMMENDATIONS**

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1 INTRODUCTION

- 1.1 The following Academic Board Review Team visited the Faculty of Pharmacy on Thursday 3 October 2002 as part of the review and evaluation of teaching, learning and research training in all faculties in the University.

Chair

Professor Judyth Sachs

Chair, Academic Board

Team members

Associate Professor Russell Ross

Deputy Chair, Academic Board

Associate Professor Scott Kable

Faculty of Science

Dr Elizabeth Ellis

Faculty of Health Sciences

Ms Ann Poulos

Faculty of Health Sciences

Observer

Prof Rif Ebeid

Faculty of Arts

Administrative Officer

Rachel Symons

Quality Assurance Officer (Teaching and Learning)

- 1.2 During the visit, the Team interviewed the following groups of staff and students:

- Dean Professor Charlie Benrimoj, Heads of Disciplines, and Chairs of Committees¹
- Undergraduate students
- Postgraduate research students
- Postgraduate coursework students
- Other academic and general staff²
- Open interviews with staff

- 1.3 This report is based on the findings of the Review Team in relation to the teaching and learning, and research training activities of the Faculty. It is based on the Self-Evaluation Report, the Faculty Teaching and Learning Plan, additional documentation provided to the Faculty (listed at Appendix Two), and interviews conducted with staff and students during the visit.

2 GENERAL COMMENTS

- 2.1 Overall, the Review Team considered that the quality of teaching and learning and research training within the Faculty was of a high standard. Staff and students showed commitment to the program. The Team was especially impressed with the support, enthusiasm and loyalty of the student cohort. Students were keen to ensure that future students, and the profession, would benefit from their input into the review process.

See Commendation 1

3 STRATEGIC PLANNING

3.1 Planning process

- 3.1.1 The collegial planning process utilised by the Faculty is to be commended. Consultation on the Strategic Plan takes place across all disciplines, with communication to staff at all levels. Issues from the Strategic Plan are discussed at committee level before being taken to Faculty forums

¹ Referred to as Faculty in the report

² Referred to as staff in the report

which all staff are invited to attend. Staff appreciated the opportunities provided for them to participate in the planning process, and provide comments freely and openly.

See Commendation 2

3.2 Future plans and priorities

- 3.2.1 The Faculty identified a number of priorities which it needed to address. These included changes in the curriculum to reflect the needs of the pharmaceutical industry and profession, balancing of teaching and research, appointment of key professorial and other academic staff, attracting high quality PhD students, and increasing the student base to include indigenous students. Looking to the future education of pharmacists, and current trends in pharmacy education overseas, the Dean is investigating the feasibility of introducing a professional doctorate with graduate entry.
- 3.2.2 The Faculty acknowledged that it needed to focus on what was achievable. Therefore the Review Team recommends that they identify and prioritise the main objectives to facilitate earlier achievement of those that were most important.

See Recommendation 1

4 IMPLEMENTATION OF ACADEMIC BOARD POLICIES

4.1 Dissemination of Academic Board policies

- 4.1.1 The Review Team commends the effectiveness of the methods used by the Faculty to communicate information about Academic Board policies to staff. New policies are discussed at staff forums, to ensure that everyone is aware of the existence and content of the policy. Discipline heads are informed about all new policies. Staff and students were aware of policies relating to teaching and learning and research training, in particular Academic Honesty, Assessment, Evaluation (*See Section 8*), Generic Attributes, and Postgraduate supervision (*See Section 7*). The Teaching and Learning Committee is currently summarising all Academic Board policies for inclusion in the 2003 student handbook.

See Commendation 3

4.2 Academic Honesty in Coursework

- 4.2.1 Discussions with students indicated that the Academic Honesty in Coursework policy is well known in the student cohort. The Team were informed that it is included in all unit of study outlines and mentioned in lectures. Students are made aware of the consequences of infringement, are encouraged to ask questions, and are informed of actions taken on issues relating to plagiarism. They appreciated the positive steps taken by the Faculty to reduce instances of plagiarism, and expressed the view that the number of reported cases had reduced considerably over the past four years.

4.3 Assessment

- 4.3.1 Students considered that unit of study objectives were clearly stated in all unit of study outlines and clearly explained at the beginning of the course. Most units provided information on requirements for attaining specific grades.
- 4.3.2 Feedback on assessment tasks was provided in a timely and effective manner by most lecturers. Students have noted an improvement over the past four years in this process and considered that staff were approachable for individual feedback as required.

See Commendation 4

4.4 Generic attributes of graduates

- 4.4.1 In some disciplines within the Faculty, generic and disciplinary skills are clearly articulated in units of study outlines and are designed to build transferable skills progressively through students' programs of study. Other disciplines are still in the process of incorporating these skills into all areas of their curriculum. The Teaching and Learning Committee is currently developing a template for unit of study outlines which will specifically address generic skills. Students were aware of the skills once they were described and were able to provide examples of their implicit use within the curriculum, for example group work, professional ethics and research skills. The Team was impressed with the use of generic attributes in the development of the Bachelor of Pharmacy (Rural) program, but considered that they were not as well articulated in other programs.

See Commendation 5

5 QUALITY OF TEACHING AND LEARNING

5.1 General comments

- 5.1.1 A strong emphasis on the importance of teaching within the Faculty was evident. Staff development, curriculum integration and ensuring that all students receive the best educational opportunities possible, are among priorities being currently addressed. Students considered the constant review and evaluation of programs to be worthwhile, and had seen the resulting changes.

5.2 Staff development

- 5.2.1 The Team commends the use of the Institute for Teaching and Learning by the Faculty to emphasise the importance of teaching. The Faculty is focussing on fostering greater involvement of staff in curriculum design and review, and encouraging participation in Institute for Teaching and Learning workshops. Staff are also encouraged to undertake the General Certificate of Higher Education, with teaching relief provided as necessary. They were appreciative of the opportunities provided to improve their teaching and learning skills.
- 5.2.2 The Review Team found variation in the provision of the mentoring for new staff across disciplines. Whereas some staff reported good experiences with weekly meetings with teaching and research mentors, others had received none. The Faculty is aware that the process of mentoring could be improved, with the Research Committee discussing the need for a Faculty-wide scheme. New academic staff have established a New Staff Committee and have set up guidelines for the mentoring process.
- 5.2.3 Training and recruitment of postgraduate research students as demonstrators by the Faculty was found to be variable across the disciplines. Staff reported that the recruitment process for demonstrators was fairly informal, and that one training session was provided before PhD students took their first session. Students who had been demonstrating for a couple of years informed the Team that one discipline had recently introduced training sessions. The Faculty could consider developing a policy on appointment, recruitment and training of demonstrators that would ensure a systematic process across all disciplines.

See Commendations 6 and 7, Recommendations 2 and 3

5.3 Staff structure and workload

- 5.3.1 Concern was expressed about the additional work for junior academic staff resulting from the lack of a strong professoriate, particularly in relation to committee membership. While committee participation can be considered to be good experience for these staff, it also reduces the time available to undertake career enhancing research. The Dean expressed the view that

these younger staff made a very valuable contribution to these committees, and that their inclusion reflected the non-hierarchical ethos of the Faculty.

- 5.3.2 Staff in the Pharmaceutics discipline were particularly affected, due to the delay in making senior and other academic appointments. This delay, and the resulting additional workload for staff in this discipline, was affecting the quality of the program and the research productivity of its staff. Pharmaceutics staff expressed the view that recruitment to the discipline was difficult due to the attraction of lucrative employment in industry in comparison to academia.

See Recommendation 4 and Recommendation 5

5.4 Rewarding good teaching

- 5.4.1 The Faculty has been successful in teaching excellence awards at University level, and staff have been nominated for the Australian Award for University Teaching. Strong support is provided to staff who apply for rewards, and the Teaching and Learning Plan includes provision for the introduction in 2002 for two Faculty annual teaching awards, one of which will be reserved for a postgraduate student involved in part-time teaching. Postgraduate students were aware of this award through the Self-Evaluation Report, but were unaware whether it had been awarded. Staff reported that mechanisms for implementation of the postgraduate teaching award were currently under discussion by the Programs Committee.

5.5 Curriculum Review

- 5.5.1 The Faculty is currently undertaking an extensive review of its undergraduate curriculum. This will include close attention to two key developments. First, pharmacy education worldwide is moving towards service provision, and the training of community pharmacists, rather than a science based training as in the past. Second, a review of the Faculty's SCEQ results identified a number of problems relating to the second and third year of the undergraduate degree program.
- 5.5.2 The Review Team acknowledges that there is underlying tension in the two branches of pharmacy – science and service provision – and is impressed with the way in which the Faculty is bridging the gap between the two. The development of interdisciplinary units, and the resulting cooperation between the disciplines is beneficial to both staff and students. Workshops integrating units of study across disciplines have been held.
- 5.5.3 The second and third year review arose in response to SCEQ data which identified specific problems in relation to a comparison of these years of the program to the first year. Student focus groups, using an external facilitator, were conducted. The resulting comments were reviewed, and sent to course coordinators. Recommendations, including the appointment of year coordinators, and placing of lecture notes on WebCT have been made to the Faculty. A staff forum was held to discuss the new curriculum, at the end of which a vision, mission and learning outcomes were formed. Staff appreciated the fact that everyone was included in the process, and that vigorous discussions took place.
- 5.5.4 A similar process was used by the Faculty to address concerns expressed by the student cohort about their workload. Focus groups held with fourth year students showed that the workload in second and third year was particularly heavy compared to first and second years. Students were encouraged that the Faculty is investigating ways of changing the workload, and expressed the opinion that professionally oriented material from second year could be incorporated into first year subjects, thus providing an earlier introduction to professional pharmacy practice.
- 5.5.4 The Review Team was impressed with the curriculum review process. They considered it to be effective, systematic, timely, and consultative.

See Commendations 8 and 9

5.6 Research-led teaching

- 5.6.1 The Review Team found a strong awareness of discipline based research and research-led teaching throughout the Faculty. Both undergraduate and postgraduate coursework students were able to cite examples of the use of research by staff in their teaching.

See Commendation 10

5.7 Online learning

- 5.7.1 The Review Team found inconsistency in the use of WebCT and online learning throughout the Faculty. Currently fifty percent of all lecture notes are available on WebCT. Staff reported that, whereas some units were embracing WebCT, others have chosen not to use it, and yet others place specific material on the Faculty website. Undergraduate students reported varied practices across units with online learning. Both WebCT and the website were used by different lecturers; often lecture notes were not available prior to the lecture; sometimes both electronic and hard copies were made available; and some assessments were on WebCT. Postgraduate coursework materials were not available on WebCT.

- 5.7.2 The Faculty has recently employed two specialist instructional and web design staff to support the move to a greater emphasis on small group and problem based learning, and the move to synchronous teaching between the Sydney and Orange campuses in 2003 for the Bachelor of Pharmacy (Rural Program).

See Recommendation 6

5.8 Library resources

- 5.8.1 The Pharmacy library was closed in December 2001, with the resources moved to the Medical Library. The old library space was converted to an IT resource centre. Differing views were expressed among staff and students about the level of student consultation that took place prior to the move. Whereas senior staff considered that the student body had been involved in discussions from the beginning and had agreed to the move; some staff and students considered that the students had not been sufficiently consulted. Some students had been unaware of the move until after it had occurred.
- 5.8.2 Staff and students considered the distance of the Medical Library from the Pharmacy Building to be an inconvenience, especially when library reference resources needed to be consulted during class. However, they appreciated the additional resources, extended opening hours and improvement in service now available to them through the Medical Library.
- 5.8.3 Postgraduate coursework students studying Herbal Medicine would appreciate the opportunity to borrow subject specific material from the Herbal Medicine Office. They reported that the Medical Library offers some material for their course, but not specific items which are held by the Department.

6 STUDENT PROGRESSION

6.1 Talented students program

- 6.1.1 The Faculty has introduced a talented students program where fourth year students are provided with the opportunity to undertake research in their discipline which can lead to an honours program. Positive feedback is being received from students currently in the program, with students from previous years proceeding to PhD candidature. The Faculty is investigating introducing this program for first year students.

6.2 Students at risk

- 6.2.1 A number of mechanisms are in place within the Faculty to identify and support students at risk. The Faculty has introduced a pharmacy specific subject into the first year program, which aims to familiarise students with the profession. Written assignments, MASUS literacy evaluations, oral presentations, and examination results help identify students with academic problems. These students are referred to the Learning Centre for additional support and skill development. The First Year coordinator and the Associate Dean (Undergraduate) are also available to help with individual problems.
- 6.2.2 The Review Team was concerned about the English language proficiency of local postgraduate coursework students. They were informed by staff that there were no formal processes in place to assist these students, but that action would be taken if requested by the student. Remedial courses may be suggested if thought necessary by the supervisor.

6.3 International students

- 6.3.1 The Faculty expressed the opinion that support systems in the Faculty should be for the student body as a whole; the Faculty does not identify the international students as a separate group. They undergo the same orientation process, and the same entry rigor as local students. International students are referred to the International Office if they require assistance. The Faculty might consider the development of its own Faculty specific strategies and policies in relation to international student support to complement those available at University level. The appointment of an international student coordinator would be a positive move.
- 6.3.2 International students would appreciate access to scholarships, and reimbursement for rural pharmacy placements, both of which are available to local students. Staff reported that the latter are funded by the Pharmacy Guild, who do not extend the funding to international students. Country pharmacies are reluctant to take international students on placement, since they prefer students who are likely to return to the country after graduation.

See Recommendation 7

7 RESEARCH SUPERVISION

7.1 Research supervision

- 7.1.1 The Faculty identified improving postgraduate supervision, and raising awareness by supervisors of the need for timely completion, as major priorities in the Strategic Plan. Postgraduate research students met by the Review Team were satisfied with the level of supervision they received, and all considered themselves to be part of a research team within their department. They expressed the view that the small size of the Faculty made it difficult to approach other members of the staff or the Postgraduate committee if they had problems with their supervisor.
- 7.1.2 The Faculty conducts an annual internal review of all postgraduate candidates. In line with Academic Board Policy, this process consists of completion of an annual progress reports form and interviews of students during their first year of candidature. Interviews for students during the second to fourth years of candidature are conducted at their own request or at the request of the supervisor. Confidential reports of the interviews are forwarded to the Dean and used to identify supervisory problems. Students considered that this process was constructive in that it made them aware of their progress. Students in the second to fourth year of their candidature expressed the opinion that the discussions were more useful than filling in forms.
- 7.1.3 Whilst the Faculty encourages all staff to attend the Institute for Teaching and Learning postgraduate supervision workshop, there is no formal requirement for individual supervisors to attend these workshops. As previously mentioned, supervisory problems are identified through the student annual review process. Supervisors who require training are approached informally

regarding enrolment in the workshop, but attendance is not confirmed by the Faculty. All new staff are assigned a research mentor (*See Section 5.2.2*) to enhance effective supervision skills.

7.2 Support for postgraduate research students

- 7.2.1 Support for postgraduate research students varies across disciplines. All students are provided with desks, access to computers and appropriate working environment. Whereas students in one discipline all have their own computer, students in another did not. All students have access to the postgraduate room with computers and internet access. They expressed the view that IT support for this facility had declined since devolution to the University Information Technology Service.
- 7.2.2 Students reported that they received support to attend conferences, but were of the opinion that the sum received may depend on the amount of funding available to their supervisor. The Faculty allocates funding to each discipline based on the number of local and international students³. Disciplines either pool the available funds or allocate them to individual supervisors. Students were aware of the University Postgraduate Support Scheme, with the Faculty reporting that this was accessed in a competitive manner.

See Recommendation 8

7.3 Roles of Postgraduate Committee and Research Committee

- 7.3.1 The Postgraduate Committee is involved in matters relating to research candidature, postgraduate students and issues relating to the postgraduate experience. It includes representatives from the postgraduate research student cohort. Students considered members and representatives to be approachable and ready to help with problems.
- 7.3.2 The Research Committee looks after mentoring of new staff, research grants, research activity of academic staff and enhancing the research culture of the Faculty. Both committees are involved in joint discussions of common issues.

8 QUALITY ASSURANCE PROCESSES

8.1 Benchmarking

- 8.1.1 The Faculty is actively seeking avenues by which it can remain the pre-eminent Faculty of Pharmacy in Australia and become the pre-eminent Faculty internationally, both in teaching and research. Benchmarking activities with other faculties in the university, as well as with other Australian universities, will aid in the assessment of whether it remains the pre-eminent Australian Faculty in the future. The SCEQ, CEQ and the Faculty's own perception will be used to provide a clear understanding of the areas where improvements are necessary.
- 8.1.2 A group of Heads of Disciplines of other Pharmacy faculties are currently working on the development of benchmarking indicators for teaching and research.

8.2 Evaluation

- 8.2.1 There is a culture of review and evaluation across all disciplines. Individual staff members reflect on student feedback on units of study and implement changes which are made evident to the students. Disciplines review data and discuss changes at their annual retreats. Outcomes of significant reviews, such as the second and third year review, are discussed at student forums, though there is no formal method of communicating changes to students. The Faculty considered that the Staff-Student Liaison Committee might be used more effectively for this purpose.

³ \$2500 for international students; \$1000 for local students; \$500 for honours students

- 8.2.2 The Staff-Student Liaison Committee is being used effectively. Students appreciated the fact that most problems taken to the Committee by their representatives were resolved, and cited examples of changes which had been made as a result of their feedback. It was noted by students that staff were now more receptive to constructive criticism than in the past.

See Commendation 11

9 CONCLUDING COMMENTS

- 9.1 The Faculty of Pharmacy is commended on the support, enthusiasm and loyalty of the student cohort to the program. Planning, evaluation and curriculum review processes are effective, consultative and collegial, and starting to break down inter-disciplinary barriers. Emphasis on teaching and learning within the Faculty is evidenced by use of the Institute for Teaching and Learning and the staff mentoring program. Improvements are apparent in assessment, feedback, and awareness of course objectives. There is a strong awareness of discipline based research and research-led teaching across all disciplines. The Faculty is complying with Academic Board policies, and communicating them to staff and students. Full details of points of commendation are provided in Section 10 below.
- 9.2 Areas which the Faculty might consider for improvement include prioritising main objectives from the Strategic Plan, development of policies on the recruitment, appointment and training of demonstrators, placing postgraduate coursework materials on WebCT, and development of Faculty policies for international students. The appointment of a professor and other academic staff in the Pharmaceutics discipline is considered a priority. Full details of recommendations are provided in Section 11 below.
- 9.3 These findings were communicated to the Dean through the Brief report of the findings of the Review Team which was sent to the Faculty on 23 October 2002.

10 AREAS OF GOOD PRACTICE (COMMENDATIONS)

Based on the Self-Evaluation Report, the Teaching and Learning Plan and the findings of the review visit the following areas of good practice have been identified within the Faculty of Pharmacy.

Commendation 1

The Review Team commends the Faculty on the support, enthusiasm and loyalty of the student cohort to the Faculty. *(See Section 2)*

Commendation 2

The Review Team commends the Faculty on its collegial planning process and the use of staff forums and delegation to committees. *(See Section 3.1)*

Commendation 3

The Review Team commends the Faculty on the communication and knowledge of Academic Board policies to all staff and students. *(See Section 4.1)*

Commendation 4

The Review Team commends the Faculty on the improvement in the timeliness of feedback on assessment, and the awareness of course objectives across all disciplines. *(See Section 4.3)*

Commendation 5

The Review Team commends the Faculty on the use of generic attributes in the development of the Rural pharmacy program. *(See Section 4.4)*

Commendation 6

The Review Team commends the Faculty on its use of the Institute for Teaching and Learning. This is linked to the emphasis on the importance of teaching and learning within the Faculty. *(See Section 5.2.1)*

Commendation 7

The Review Team commends the Faculty on the mentoring of new staff in teaching and research. However there are inconsistencies in the process across the Faculty which need to be addressed. *(See Recommendation 2) (See Section 5.2.2)*

Commendation 8

The Review Team commends the Faculty on the cross disciplinary work which is starting to break down barriers between the disciplines, particularly in relation to the science and practice of Pharmacy. *(See Section 5.5)*

Commendation 9

The Review Team commends the Faculty on its curriculum review process, which was considered to be effective, systematic, timely and consultative. *(See Section 5.5)*

Commendation 10

The Review Team commends the Faculty on its integration of discipline based research and teaching and provision of effective research-led teaching across all disciplines. *(See Section 5.6)*

Commendation 11

The Review Team commends the Faculty on the effective use of the Staff-Student Liaison Committee in the evaluation process. *(See Section 8.2.2)*

11 AREAS OF CONSIDERATION FOR IMPROVEMENT (RECOMMENDATIONS)

The Review Team identified a number of areas for consideration for improvement, and makes the following recommendations to the Faculty.

Recommendation 1

Noting the extensive objectives identified in the Faculty's Strategic Plan, the Review Team recommends the identification and prioritisation of the main objectives to facilitate earlier achievement of those that are most important. *(See Section 3.2)*

Recommendation 2

The Review Team recommends that the Faculty consider ways of ensuring consistency of the staff mentoring process across the Faculty. *(See Section 5.2.2)*

Recommendation 3

The Review Team recommends that the Faculty consider the development of a policy on the appointment, recruitment and training of demonstrators *(See Section 5.2.3)*

Recommendation 4

The Review Team recommends that the Faculty give priority to building up its professorial staff members, and in so doing reduce the workload (for example on Faculty committees) of junior staff to enable them to undertake more research. *(See Section 5.3.1)*

Recommendation 5

The Review Team recommends the Faculty appoint a professor and other academic to the Pharmaceuticals discipline. This will relieve the workload pressure from other staff within the discipline. *(See Section 5.3.2)*

Recommendation 6

The Review Team recommends that the Faculty makes the provision of postgraduate coursework materials on WebCT a priority. *(See Section 5.7)*

Recommendation 7

The Review Team recommends that the Faculty consider the development of its own Faculty specific strategies, policies and decisions in relation to international student support to complement those at University level. The appointment of an international students coordinator would be a positive move. *(See Section 6.3)*

Recommendation 8

The Review Team recommends that the Faculty consider ways to address the uneven distribution of support for postgraduate research students across disciplines, and provide students with clearer advice about how funds are allocated. *(See Section 7.2)*

Professor Judyth Sachs
Chair, Review Team
Chair, Academic Board

17 December 2002

FACULTY OF PHARMACY
ACADEMIC BOARD REVIEW VISIT
THURSDAY 3 OCTOBER 2002

BRIEF REPORT OF THE FINDINGS OF THE REVIEW TEAM

1. Introduction

1.1 The Academic Board Review Team, chaired by Prof. Judyth Sachs, Chair of the Academic Board, visited the Faculty of Pharmacy on Thursday 3 October 2002 to review and evaluate academic planning and quality assurance systems within the Faculty.

1.2 The Review Team conducted interviews with the following:

- The Dean, Professor Charlie Benrimoj
- The Dean, Heads of Disciplines and Chairs of Committees
- Undergraduate students
- Postgraduate research students
- Postgraduate coursework students
- Other academic and general staff
- Open session interviews

2 Areas of good practice

2.1 Support, enthusiasm and loyalty of student cohort to the program.

2.2 Collegial planning process using staff forums and delegation to committees.

2.3 Effective use of staff- student liaison committee

2.4 Use of generic attributes in development of Rural Pharmacy program.

2.5 Effective, systematic, timely and consultative curriculum review process.

2.6 Mentoring of new staff in teaching and research is strong in one discipline but not in others.

2.5 Use of the Institute for Teaching and Learning linked to emphasis on importance of teaching within the Faculty.

2.6 Awareness of course objectives.

2.7 Communication and knowledge of Academic Board policies.

2.8 Strong awareness of discipline based research and research led teaching; use of research by staff in their teaching.

2.9 Improvements in timeliness of feedback and assessment.

2.10 Cross disciplinary work is starting to break down barriers.

3. Areas of consideration for improvement

- 3.1 Lack of strong professoriate leading to extra work for junior staff which prevents them from undertaking research.
- 3.2 Identification and prioritisation of main objectives from strategic plan.
- 3.3 Ensure consistency of staff mentoring process across the Faculty.
- 3.4 Appointment of professor and other appointments in Pharmaceutics to relieve workload pressure from other staff.
- 3.5 Development of policy on appointment, recruitment and training of demonstrators.
- 3.6 Communication to students is inconsistent across disciplines.
- 3.7 Postgraduate support uneven across disciplines. Need to inform students on how funds allocated.
- 3.8 International student support at Faculty level. Appointment of international students coordinator.

4 Observations

- 4.1 Development of interdisciplinary teaching is bridging the gap between science and practice of the profession. Need to keep watching brief on situation.
- 4.2 Discrepancy between how the move of the library came about and the perception of the move with staff and students.
- 4.3 Happy with quality of teaching and learning and research training. Very committed staff and students.

Prof. Judyth Sachs
Chair, Review Team
Chair, Academic Board

23 October 2002

- 1 Faculty of Pharmacy Academic Quality Assurance Self-Evaluation Report September 2002 (See Appendix Three)
Appendices from the Self-Evaluation report (not included in Appendix Three):
 - A Unit of Study template
 - B SCEQ data 1999-2001
 - C Summary of 2nd/3rd year curriculum review to September 2002
 - D The staff student liaison process in 2002
- 2 Faculty of Pharmacy Teaching and Learning Plan 2002-2004 (See Appendix Four)
- 3 Faculty of Pharmacy organisational structure
- 4 Faculty of Pharmacy Strategic Plan priorities 2002-2003: strategies, performance measures and timelines
- 5 Draft Vision and Mission statements and goals for the undergraduate degree programs (under consideration by the Dean's Advisory Committee)
- 6 Postgraduate progression guide
- 7 Agendas from sub-discipline retreats 2001
- 8 2nd and 3rd year course review: a progress report

FACULTY OF PHARMACY SELF-EVALUATION REPORT 2002

INTRODUCTION AND FACULTY CONTEXT

The Faculty of Pharmacy was established on January 1, 2000 as the 18th faculty of the University of Sydney, and the first Faculty of Pharmacy in Australia. For the previous two years, the Department of Pharmacy existed as a separate academic unit within the College of Health Sciences, with its degree administration carried out by the Faculty of Science (undergraduate) and the Board of Postgraduate Studies of Medicine and Pharmacy (now Medicine, Dentistry and Pharmacy) (postgraduate). The first Dean of the faculty was appointed in May 2000, and the first Associate Deans were appointed in July 2000.

The primary educational aim of the faculty is to produce graduates with the appropriate knowledge, skills and behaviours which will enable them to participate effectively in the community, and contribute significantly to its health and welfare. In particular, graduates of the Faculty are expected to be well prepared for participation in pharmacy in a wide range of capacities, and with the potential to exercise leadership within the profession and more widely within the health care arena. Postgraduate programs complement the undergraduate degree through the provision of opportunities to specialise, and the research programs provide appropriate candidates with the opportunities to develop skills in basic and applied research.

The faculty currently offers one undergraduate degree, five postgraduate degrees, four graduate diploma and two graduate certificate programs. Recently, the faculty has sought avenues by which it can enhance its provision of relevant pharmacy education, with the result that two new programs will be offered for the first time in 2003, and two programs currently offered only part-time will also become available on a full-time basis (subject to approval). The Bachelor of Pharmacy (Rural) is a new undergraduate degree which will be offered at the Orange campus of the University as part of the Centre for Regional Education Orange (CREO), while the Master of Pharmaceutical Industry, together with its articulated Graduate Certificate and Graduate Diploma programs will be offered from the Sydney campus. These two programs are highly innovative and are designed to address clearly defined areas of need and demand. The Bachelor of Pharmacy (Rural) has received enthusiastic support from the profession at national and local level, and one of its expected outcomes will be the amelioration of the workforce shortfall in rural and remote areas. It is a unique degree in that it will provide a specialist focus on issues specific to rural and remote pharmacy, while at the same time ensuring that graduates will qualify for registration without regional restrictions. The graduate programs in Pharmaceutical Industry will provide educational opportunities for a wide range of practitioners and potential practitioners within the pharmaceutical industry, thus providing possibilities for substantial career enhancement. The Masters programs in Clinical Pharmacy and Herbal Medicines will be offered on a full-time basis, thus making them accessible to international candidates.

These additional programs will result in exciting opportunities to expand the directions of the faculty, both through the engagement of additional staff and the investment in expanded resources. The challenge of delivering undergraduate teaching through a combination of local and remote modes has led the Faculty to focus particularly on enhancement of its information and communication technologies, and appointment of specialist staff with expertise in these areas.

In 1997, the Bachelor of Pharmacy degree was extended from a three-year program to four years, and the first cohort of candidates graduated in March 2001. Within this degree, the Honours program has been extensively restructured in order to recruit outstanding candidates and expose them to the possibilities of postgraduate research. **In 2001, 31 graduates were awarded Honours with one receiving the University Medal, while in 2002 these numbers increased to 34 Honours awards and three**

University Medals. Of the 2001 graduates, six enrolled in 2002 as Doctor of Philosophy candidates. These figures represent significant enhancements in postgraduate recruitment (in terms of both quantity and quality) from the Faculty's undergraduate degree program in comparison with the previous Honours structure.

The Bachelor of Pharmacy offered by the faculty is one of two such degrees obtainable in NSW and accredited by the Pharmacy Board of NSW for the purpose of gaining registration as a pharmacist. The Bachelor of Pharmacy (Rural) will become the third such degree to be offered within NSW. National accreditation of Pharmacy degrees will shortly be implemented by NAPSAC in order to ensure the maintenance of quality standards across Australia, and the faculty will be subject to an accreditation review within five years.

The faculty has experienced success in attracting research grants for many years, and has recently extended that success to the attraction of grants for teaching research and improvement. Currently two substantial projects are in progress, supported by these grants. A major review of the undergraduate curriculum is being undertaken, in consultation with Emeritus Professor Ann Sefton, an acknowledged curriculum development expert, while a second project is focusing on the experiences of both students and preceptors in the faculty's extensive clinical placements scheme. Both projects are expected to provide research evidence on which to base subsequent curriculum decisions in order to enhance student learning.

The recent and ongoing expansion of teaching programs has resulted in the appointment of a group of young, energetic staff members to complement the experience and expertise of the established faculty team. Although relatively new to faculty management activities, Pharmacy has been a strong and cohesive Department within the University for many years, with a proven record of excellence in research, and a commitment to maintaining and enhancing the quality of its teaching. The faculty enjoys a close and cooperative relationship with its students, both academically and administratively. Student opinions are actively sought on a regular basis, and their input is taken into account in the implementation of decisions concerning them. The faculty also enjoys the strong support of its graduates, through organisations such as the Pharmacy Practice Foundation and the Pharmacy Alumni Association, whose continuing interest in the faculty's activities is evident in their financial support for teaching positions, physical and other resource needs.

In terms of physical resources and facilities, the faculty has experienced significant improvements and expansion over the past five years. The introduction of the four-year program necessitated the construction of additional teaching spaces, which have been equipped with student learning as a central consideration. Extensive investment in information and communication technologies has supplemented the move to a greater emphasis on small-group and problem-based learning, and this area continues to expand with the move to synchronous teaching between the Sydney and Orange campuses from 2003. Two specialist staff positions have been created in instructional and web design to support this move to mixed-mode teaching and learning, and appointments to these positions are expected shortly.

A summary of the overall goals, and the priority areas being addressed by faculty committees in 2002 follows.

OVERALL GOALS

Teaching and Learning

1. Continue to attract and retain high quality students, both locally and internationally, into the undergraduate and postgraduate programs.
2. Continue to develop and refine the curriculum of the undergraduate and postgraduate coursework degrees, to produce high quality programs within a mode 2 framework
3. Encourage and reward excellence in teaching and assessment, enhance staff development and encourage scholarship in teaching

4. Expand the funding and resource base for teaching at the undergraduate level
5. Expand the breadth of the undergraduate and postgraduate experience through diversification and globalisation of the learning environment

Postgraduate

1. Attract high quality students into postgraduate programs;
2. Facilitate the timely completion of postgraduate programs by promoting, encouraging and rewarding excellence in scholarship and postgraduate supervision;
3. Develop, refine and promote postgraduate coursework degrees.

Research

Goal: To enhance research performance in the Faculty of Pharmacy by

1. fostering/training new and existing staff for research activity.
2. encouraging existing research active staff to maintain and improve their research productivity.
3. recruiting research students and research only staff.
4. promoting collaborative research across the Faculty.
5. fostering collaboration and networks across the University and externally with International colleagues and Industry partners.
6. sharing research expertise and resources.

PRIORITY AREAS FOR 2002-03

These priority areas were identified by the relevant committees, and were submitted for consideration by the faculty as a whole at a planning day held in the vacation between semesters (July 23). The priorities listed below are therefore supported across the faculty, although the responsibility for implementation lies with the nominated committee.

1 Teaching and Learning Committee

- 1.1 successful completion of the Academic Board review of the faculty
- 1.2 review of 2nd and 3rd years of the Bachelor of Pharmacy curriculum
- 1.3 implementation of the quality assurance program for the Clinical Pharmacy Practice Program
- 1.4 expansion of the Talented Student Program
- 1.5 development and publication of a student code of conduct

2 Programs Committee

- 2.1 continue to attract and retain high quality students, both locally and internationally, into the undergraduate and postgraduate programs
- 2.2 optimize the faculty's scholarship in teaching based on the university scholarship index criteria for teaching

- 2.3 expand the breadth of the undergraduate and postgraduate experience through diversification and globalisation of the learning environment
- 3 Postgraduate Committee
 - 3.1 promote timely completion of postgraduate candidature
 - 3.2 attract and retain high caliber postgraduate research students
- 4 Research Committee
 - 4.1 fostering/training new and existing staff for research activity
 - 4.2 encouraging existing research active staff to maintain and improve their research productivity
 - 4.3 recruiting research students and research only staff
 - 4.4 promoting collaborative research and networks, and sharing research expertise

A more detailed outline of the strategies, performance measure and timelines associated with these priorities is enclosed as a separate document.

TEACHING BY THE FACULTY OF PHARMACY

2002 enrolments in the programs offered by the Faculty of Pharmacy are as follows (2001 figures):

Undergraduate candidates

Bachelor of Pharmacy 812 (788)

Postgraduate candidates (at commencement of semester 2)

Doctor of Philosophy	47* (46)
Master of Pharmaceutical Sciences	4* (3)
Master of Pharmacy (Clinical)	14 (25)
Master of Herbal Medicines	12 (22)
Graduate Diploma in Pharmaceutical Sciences	8 (6)
Graduate Diploma in Clinical Pharmacy	11 (8)
Graduate Diploma in Herbal Medicines	0 (1)
Graduate Certificate in Clinical Pharmacy	0 (1)
Total	96 (112)

* Eight PhD theses and one MPharmSci thesis are under examination as at September 2002.

Active units of study

Undergraduate	44 (54)
Postgraduate	33 (30)
Total unit of study enrolments	5632 (5463)
EFTSU	HECS
	444.5 (430.2)
	Local fee 45.2 (43.3)
	International 49.7 (47.6)
	Other 2.5 (5.6)
	Total 541.9 (526.7)

Within the Bachelor of Pharmacy, approximately one-third of the teaching is carried out by external Departments and Schools within the Faculties of Medicine and Science. The yearly contribution by these units decreases from 75% in first year, to 40% in second year, 17% in third year, and no contribution to fourth year apart from an Advanced program offered to a small number of students.

At present, the Faculty of Pharmacy does not formally offer units of study in degree programs other than its own, however Faculty staff are involved in the provision of specialist teaching in the Faculties of Medicine, Dentistry, Health Sciences and Nursing, and in the Bachelor of Optometry program at the University of New South Wales. In addition, collaborative teaching has been introduced between the faculties of Pharmacy and Nursing, where final year students in both faculties have undertaken joint tutorial activities.

Staff numbers

Academic staff	27 (26)
Research-only academic staff	8 (8)
Research-only general/admin staff	10 (10)
Practitioner teachers (part-time)	12 (11)
Technical staff (full-time)	11 (8)
Technical staff (part-time)	2 (2)
Administrative staff - faculty	7 (7)
Administrative staff – foundations	4 (4)
Honorary and adjunct staff	12 (10)

Administrative structure

1. Committee structure

The major committees of the faculty are:

Dean's Advisory Committee	chaired by Dean
Postgraduate Committee	chaired by Associate Dean (Postgraduate)
Programs Committee	chaired by Associate Dean (Admissions and Administration)
Research Committee	chaired by Associate Dean (Research)
Teaching and Learning Committee	chaired by Associate Dean (Undergraduate)

The latter four committees are responsible for oversight of the implementation of the faculty's Strategic Plan, while the Dean's Advisory Committee serves as an advisory body on matters of both policy and practice. **Within the overall Strategic Plan, the Teaching and Learning Plan is administered jointly by the Teaching and Learning Committee and the Programs Committee, the Research Committee is responsible for the Research Plan, while the Postgraduate Committee has oversight of the Postgraduate Plan. Inter-committee co-ordination is achieved through regular meetings of the Chairs of Committees.**

2. Academic structure

Academically, the Faculty of Pharmacy currently consists of three sub-disciplines – Pharmaceutics, Pharmaceutical Chemistry and Pharmacy Practice – each led by a Professor, although the Chair of Pharmaceutics has been vacant since 2000. Historically these sub-disciplines functioned independently to a large extent, however in recent years, an increasing level of cooperation and integration has been actively pursued, with significant advantages already realised. The appointment of the Chair of Pharmaceutics is expected to lead to exciting new directions in research and teaching for the faculty, as this position is being expanded to encompass Pharmacogenomics, Pharmacogenetics, Proteomics and Advanced Drug Delivery. Additional academic positions in these areas are currently advertised, as is a position specifically focusing on the pharmaceutical industry programs. An initial staff appointment has also been made at the Orange campus, with additional positions to become available in subsequent years.

SELF-EVALUATION

How does the faculty ensure that each course and unit has an appropriate set of aims and outcomes, clearly communicated to and understood by students, and including generic as well as disciplinary skills?

Systems for communicating aims and outcomes to students

The two primary means of informing students about courses and units are the faculty Handbook and additional comprehensive syllabus documentation. The faculty Handbook is available in both hard copy and on the University's website and provides summary information about course requirements and units of study. Syllabus documents are produced each semester for each year of the undergraduate degree, outlining essential information for students and staff. These documents are distributed to students within the first week of each semester and are available from the Faculty Office for the remainder of the semester. Additionally, they are available from the faculty's website with unrestricted access (<http://www.pharm.usyd.edu.au/undergrad/>). **In 2002, the Teaching and Learning Committee approved the adoption of a revised standardised template (Appendix A) for unit-of-study documentation, in which generic and disciplinary skills, and articulation with prior and subsequent units are specifically highlighted.** In addition, a preliminary recommendation resulting from the curriculum review (already adopted by the faculty) is that all UoS should be supported by a WebCT site containing aims and outcomes, lecture notes or outlines, assessments, grade and mark criteria, timetables, and other relevant information

An increasing number of units are already supported in this way, and the imminent employment of information technology experts will serve to enhance the capability of the faculty to utilise ICT in efficient and effective ways.

The size of the syllabus document is deliberately restricted, in order to allow easy location of essential information. Individual unit coordinators supplement the material in the syllabus documents with additional detail as required, in the form of handouts, laboratory manuals, notices and other relevant media. The faculty has an extensive system of large noticeboards, which are displayed in the main corridor of the Pharmacy building, and which constitute a simple but functional means of rapidly providing current information.

Systems for reviewing aims and outcomes (including the incorporation of generic and disciplinary skills), and the alignment between aims, methods and outcomes

Many units of study offered in the Bachelor of Pharmacy incorporate a range of both generic and discipline specific skills in their aims and learning outcomes, and within the sub-disciplines, there are clearly defined hierarchies which facilitate the orderly and progressive development of appropriate skills and knowledge. SCEQ data from 1999 to 2001 provide a process measure to indicate that students perceive their generic skills to be increasing. The faculty Teaching and Learning Plan provides for a comprehensive review of the undergraduate degree, which commenced in 1999. The initial phase of this review was completed in 2000, and a revised first year curriculum was introduced in 2001.

The current focus of the ongoing curriculum review is on the 2nd and 3rd years of the program, which have been perceived by students as inappropriate particularly in terms of workload, and to a lesser extent in assessment, good teaching and goals/standards (SCEQ results – see graphs in Appendix B, priority 1.2). To date the review has involved a process of focus group meetings of staff and students (separately), interpretation of the outcomes of these focus groups in conjunction with the SCEQ data, initial reporting to the faculty, and subsequent drafting of vision, mission and goal statements by the Teaching and Learning Committee. These statements are yet to be considered by the faculty as a whole. Within the initial report to the faculty, a number of recommendations were proposed and accepted:

- a coordinator will be appointed for each year of the degree program to oversee and coordinate all units of study within that year; hardcopy supporting notes will be provided with each unit of study; all units of study will in time be supported by a WebCT homepage; all assessment tasks will be returned to students after marking, and all past exam papers will be freely available, including

those previously classified as confidential. It was noted in the context of these recommendations that many units of study already met these requirements, but that the faculty would now implement them as standard policy. A brief summary of the report to the faculty is enclosed as Appendix C. Subsequent to the adoption by the faculty of vision, mission and goal statements, the Teaching and Learning Committee will develop learning outcomes and a proposed structure for the degree, as a discussion paper for the faculty. Constructive alignment⁴ between all aspects of curriculum is a priority.

A further level of review occurs at the level of the sub-disciplines through the conduct of annual retreats, which constitute the key mechanism by which teaching and learning are reviewed and revised at the delivery level. These annual meetings, usually held off-site, incorporate a broad review both of philosophical directions and the specific details of implementation, and provide an efficient structure for the systematic evaluation and enhancement of teaching and learning quality. Student feedback is a critical element in the review process, and feedback from part-time teaching staff is also sought. For several years, staff from the three sub-disciplines have been invited to take part in each other's retreats in order to improve coherence across the faculty's teaching, to provide a broader perspective, and to share particular expertise. One tangible outcome of this inter-disciplinary collaboration has been the development of jointly-coordinated units of study (a vital element of the Faculty Teaching and Learning Plan). Other, less tangible benefits of enhanced collegiality within the faculty have been equally apparent.

The introduction of the Bachelor of Pharmacy (Rural) degree allowed the faculty to engage in an intensive process of curriculum development, underpinned by significant stakeholder input. The groundwork for this degree was laid at a three-day workshop in January 2002, and supplemented by later sub-committee deliberations. At the initial workshop, key organisations with a stake in the profession were invited to present their visions for a rurally-focused undergraduate degree, and the Curriculum Development Committee articulated the framework of goals and learning outcomes, both for the overall degree and for the sequential years. Smaller sub-committees subsequently developed the curriculum in greater detail, ensuring that the final version remained a program which would lead to potential registration as a pharmacist, while emphasising the distinctly rural elements which make it unique.

How does the faculty ensure integration of research, including both disciplinary and interdisciplinary research and evidence about effective learning and teaching, into its undergraduate and postgraduate courses?

Links between current disciplinary/interdisciplinary research and curriculum

The faculty Research Committee is particularly active in supporting and encouraging high quality research by faculty staff and postgraduate students, and the performance of the faculty is outstanding, with research income having doubled over the past five years, and the faculty achieving the maximum rating of 10 in overall research performance. The integration of current research into teaching and learning is managed at the level of the sub-discipline, and occurs extensively in all three sub-disciplines. For example, teaching in Pharmacy Practice is centred on student learning of processes which have been the focus of research carried out within the faculty over recent years. The annual retreats described earlier are critical times for setting directions, and for discussing potential ways of incorporating novel research findings into teaching and learning.

Links between education research and curriculum

Links between current research into the theory and practice of teaching and learning and curriculum are being developed in two major ways. Firstly, staff development is actively encouraged and supported, and secondly the expertise available within the faculty and the University is used as a resource by unit of study coordinators.

⁴ Biggs, J.B. (1996) Enhancing teaching through constructive alignment. *Higher Education*, 31, 347-364

As a primary, strategic mechanism for enhancing the quality of teaching, the Teaching and Learning Plan includes strong support for staff development in teaching and learning, both in theory and practice. In particular, incentives are provided to encourage staff to participate in courses which lead to the award of formal qualifications, such as the Graduate Certificate in Educational Studies. Currently five members of staff have gained formal qualifications in university teaching (two at graduate diploma level and three at graduate certificate level). Two members of staff are currently enrolled in the Graduate Certificate in Educational Studies (Higher Education) through the Faculty of Education, and a further two staff members are acting as mentors for this certificate program. One member of staff is carrying out doctoral research into the learning of first year Pharmacy students, and an adjunct member of staff is completing doctoral research into motivational aspects of learning. Additionally, financial support is provided for the training of part-time tutors and demonstrators, to increase their skills and understanding of the specific teaching activities in which they are involved. Research into the clinical placements program is underway, with the support of a grant from the Teaching Improvement Fund.

Teaching networks and links exist within the faculty, and staff who are perceived to have expertise in teaching and learning are frequently consulted by colleagues in the context of specific issues or dilemmas. In addition, sub-discipline annual retreats often incorporate specific sessions relating to education theory and practice, and potential applications to the faculty's teaching and learning strategies. Within the faculty's weekly research seminar program, a minimum of one presentation each semester is usually devoted to teaching and learning research.

There is, however, considerable scope for expanding and formalising some of these links and networks to promote greater understanding and implementation of the underlying theoretical principles of teaching and learning.

Incorporating research into student learning

Undergraduate students are encouraged to develop and refine their research skills from the earliest stages of the degree through enquiry-oriented activities. In first year, the curriculum includes observational enquiry, library and literature research, and interview research by students, together with presentation of the results in written, poster and oral form. The concept of evidence-based practice is introduced at the same time, together with exercises designed to illustrate the processes. Students are also introduced to the tools available for evaluating information, particularly that which is available on the internet. Within a major assignment task in first semester, students may elect to carry out a small research project, evaluate health information websites, or research and evaluate the arguments surrounding such topics as safe injection rooms and mail order pharmacy (among other options). In subsequent years, these skills are utilised in many units of study, thereby providing students with frequent opportunities to enhance and develop their expertise and experience. In the final year of the degree, the Advanced streams provide talented students with the opportunity to carry out a more substantial research project in an area of interest of a particular member of staff and the student. An annual research day is held to which 3rd year undergraduate students are invited and the types of research undertaken within the Faculty are showcased and explained (priority 3.2). (In 2002, over 50 students attended this function.) The quality of research which is carried out is such that the results of many of these research projects have been presented at national conferences during the past two years. Further, all final year students engage in problem-based learning, which affords the opportunity to integrate research and clinical skills and knowledge in an authentic context.

How does the faculty ensure that student assessment is effective and contributes to learning, and that the assessment process is well understood by students?

Systems for communicating assessment requirements to students

Assessment requirements are included with the aims, outcomes, timetabling and process information that is provided to students in the syllabus documentation described above. This summary material is supplemented by additional information, both in hard copy and on the web, about the specific details for

each unit of study. The standardised template for the syllabus document mentioned earlier will further facilitate the provision of clear information about assessment.

In many units of study, practice assessments are carried out to familiarise students with the nature and process of assessment. This is particularly the case when the assessment is different in format from the standard written examination (examples include practical assessments and oral examinations). In addition, as has been outlined previously, the faculty will now ensure the implementation of a uniform policy of returning assessments to students after marking, and of making previous examination papers available for all units of study, including papers previously classified as confidential.

Relationship between assessment and learning

This is currently the responsibility of unit of study coordinators, and sub-disciplines, with academic leadership provided by the Professors. In many units, the principles of constructive alignment are employed to enhance the effectiveness of assessment in promoting learning, and in recent years there has been an increasing focus on effective and efficient implementation of continuous assessment. The development of policy and processes for the coordination and alignment of assessment is the responsibility of the Teaching and Learning Committee, and as has been indicated earlier, is a priority outcome of the current curriculum review.

A clear example of the alignment between learning outcomes and assessment is provided by the 1st year unit Concepts in Pharmacy. The learning outcomes focus on the development of an understanding and appreciation of the scope of pharmacy, of how the degree program is structured, and enhancement of skills in collaboration and presentation. Assessment is primarily through portfolio, supplemented by individual and group reports and posters on experiences and research tasks. In a later 1st year unit Social, Behavioural and Professional Pharmacy, students are expected to become able to describe the relationships between health care professionals, and are assessed on the basis of visiting different practitioners and reporting on their experiences. In Pharmacy Practice 3, students are expected to be able to carry out simple clinical interventions in consultation with both patients and prescribers, and the assessment format of clinical case studies and oral examination is closely aligned with this aim. Practical assessments are carried out in units which focus primarily on the development by students of technical and process skills, particularly in the context of dispensing prescriptions.

Extensive evaluation of the oral examination process in Pharmacy Practice 3 by both staff and students has resulted in modifications in 2002. In order to allow students the opportunity to develop and demonstrate intervention skills independently of their skills in communicating with patient and prescriber, the examination in Pharmacy Practice 3A was changed to a case study format, with a small oral component. The complete oral examination, in which intervention skills are to be integrated with communication, is now scheduled for Pharmacy Practice 3B. A further oral examination will be held in 4th year in the context of Pharmacotherapeutics. The latter unit uses problem-based learning to facilitate student learning of medication management skills, and thus the final oral examination will allow students to demonstrate their skills in integrating medication management and communication.

Assessment and feedback

Currently the regulation and monitoring of feedback to students on assessment tasks is the responsibility of the individual unit of study coordinators and the sub-disciplines under the leadership of the Professors, and the faculty encourages the rapid provision of feedback on all assessments. There are numerous examples within the faculty of appropriate systems for the provision of timely, relevant and specific feedback on assessment performance, and there is a general and genuine willingness by staff to provide feedback as promptly as is feasible. For example, detailed individual feedback on the examinations in Pharmacy Practice 3, particularly the oral examinations, has been available for many years. Students are offered appointments with an examiner and are given the opportunity to listen to the audiotape of their examination and to receive comments from the examiner on their performance. **At the end of first semester 2002, preliminary research associated with a teaching grant revealed that a number of fourth year students would appreciate greater feedback on their performance in medication**

reviews for Clinical Practice. A revised process has been implemented in second semester which allows students to choose early feedback if that is their preference (priority 1.3).

Assessment and equity

All final marks in undergraduate units of study are required to be approved by the Associate Dean (Undergraduate), who monitors grade distributions and pass rates. In the case where either statistic differs markedly from faculty norms, the course coordinator is asked for justification, and adjustments are made where appropriate.

How does the faculty ensure the quality of its teaching and recognise excellent teaching?

The maintenance and enhancement of the quality of teaching and learning are central to the implementation of the faculty's strategic plan, which is closely and actively monitored by the Dean and Dean's Advisory Committee on a regular basis.

Promoting staff development

All faculty staff are offered the opportunity to participate in courses designed to enhance their understanding of, and skills in teaching, and the faculty Teaching and Learning Plan specifically includes the provision of teaching relief for staff who undertake study towards formal qualifications in teaching. As indicated in a previous section, **the pivotal strategy for the promotion of staff development is the active encouragement of academic staff to complete the Graduate Certificate in Educational Studies (Higher Education), offered through the Faculty of Education and Institute for Teaching and Learning.** The value of this program in providing a broad understanding of fundamental educational principles, together with practical experience in implementation, has been clearly demonstrated by the members of faculty staff who have completed this course to date (priority 2.2). Complementing this strategy is the encouragement of staff to attend shorter courses of specific and timely relevance. Members of the technical staff are also encouraged to undertake further study, and three have graduated with research Masters degrees. Within the faculty's weekly research seminar program, at least one seminar each semester is usually devoted to the area of teaching and learning, and all staff are encouraged to attend and participate. Demonstrator/tutor training is mandated in an increasing number of units of study, and the training is remunerated appropriately. **In addition, an informal peer review and mentoring system, in place for several years, has now been formalised and streamlined. As new academic staff join the faculty, they are assigned a mentor who may or may not be from the same discipline or subject area. During the first twelve months as a member of the faculty, monthly meetings between mentor and mentee are held, issues relating to research and teaching are discussed and documented, and appropriate actions are taken.** In addition, a New Staff committee, comprising staff who have joined the faculty within the previous three years, meets after each semester to discuss any issues that have arisen for them since joining the faculty. As a consequence of these meetings, a document is prepared annually and forwarded to the Dean's Advisory Committee for discussion and action.

Recognising and rewarding good teaching

Strong support is provided for staff who apply for teaching excellence awards at University and National level. Currently four members of staff have received teaching awards from the university (individual award in 1998, group award in 2001), and on two occasions (2000, 2001) a group from the faculty has been nominated by the university for the Australian Award for University Teaching. The faculty Teaching and Learning Plan includes provision for the institution in 2002 of two annual teaching awards, one of which will be reserved for a postgraduate student involved in part-time teaching (priority 2.2). The process and criteria for these awards is the responsibility of the Programs Committee.

In addition, staff are actively encouraged to attend and participate in conferences and meetings which relate to education, teaching and learning, and to present papers based on their teaching or research into teaching and learning. Information relating to relevant activities is forwarded by the Dean to the

appropriate Associate Dean, who promotes these activities within the faculty. Financial support is also provided to enable staff to attend and participate in such meetings and activities. In addition, staff are encouraged to present teaching and learning papers at professional and scientific conferences (for example, the Australasian Pharmaceutical Sciences Association annual meetings) (priority 2.2).

Monitoring teaching quality

A number of mechanisms for monitoring teaching quality have been described previously in this report. Primary responsibility lies within the sub-disciplines, whose regularly scheduled retreats act as the primary vehicle. **During these annual or biannual retreats, all units of study are thoroughly reviewed, taking into account student feedback in addition to staff views and perceptions. In addition, mini-retreats are held on a more frequent basis, as deemed appropriate, for the purpose of evaluating and reviewing specific units of study or specific teaching aspects.** These mini-retreats particularly facilitate timely reviews of teaching quality, and encourage staff to engage in both long and short-term planning cycles.

Teaching quality is also monitored through close contact with the student organisation, SUPA (Sydney University Pharmacy Association) and the student body in general. Members of the SUPA Executive are active on faculty committees, and regular staff-student meetings are held with representatives of all four academic years. These meetings not only provide the opportunity for student opinion to be voiced, but are also important avenues for informing students of the ways in which the faculty has acted upon their previous comments and concerns. The most recent staff-student meeting (September 2002) indicated that issues which had been raised earlier in the year had largely been resolved (see Appendix D for issues which have been raised and actions taken in 2002).

A further mechanism for monitoring teaching quality is the increasing incidence of peer teaching review within the Faculty. This process is particularly important for the professional development of new and less experienced staff, but is not restricted to this group. Feedback provided to staff as a consequence of peer review is generally used to encourage personal reflection on teaching performance, with a view to devising options for subsequent enhancement of practice.

Reports on the process and outcomes of all retreats and reviews are forwarded to the Dean, who consults with sub-discipline heads if further action is warranted. The Dean and Associate Dean (Undergraduate) also closely monitor the results of CEQ and SCEQ surveys, and are responsible for ensuring that the issues highlighted in these surveys are referred to the appropriate group for action.

Finally, extensive anecdotal evidence from the profession and the regulatory organisations strongly suggests that the quality of graduates of the faculty's undergraduate program is high, and that the initiatives associated with the implementation of the four-year degree are producing excellent outcomes.

What arrangements does the faculty have in place to monitor and support student progression?

Undergraduate

In 1998, the STAT (Special Tertiary Admission Test) was introduced as an additional criterion for entry to the Bachelor of Pharmacy. The intention was to ensure that students offered places in the degree possessed appropriate skills in verbal and quantitative reasoning on entry.

Students without adequate background in Mathematics, Chemistry and Biology are identified at enrolment and are referred to appropriate assistance including bridging courses. **Literacy skills are formally assessed during 1st year by the Learning Centre, who also provide workshops and individual assistance to students whose literacy is assessed as being below the required standard.** Research carried out within the Faculty⁵ has clearly indicated a link between literacy skills and

⁵ Holder, G.M., Jones, J., Robinson, R.A. & Krass, I. (1999) Academic literary skills and progression rates amongst Pharmacy students. *Higher Education Research and Development*, 18 (1), 19-30

progression through the degree, hence this strategy is of critical importance. The diagnostic test has also permitted evaluation of the impact of the introduction of the STAT, and it has been clear that considerably fewer students are now being admitted with poor literacy skills.

Students' oracy skills are progressively assessed in 2nd and 3rd year, with students referred to the Learning Centre for additional support and skill development.

In accordance with University policy, the majority of units of study use continuous assessments in addition to terminal assessment. This allows identification (both by students and staff) of those students who are not meeting the criteria for adequate performance within that unit.

The introduction of semesterised units of study precipitated a number of negative progression implications for the Faculty, and in 1998, a policy was implemented which provides both flexibility and equity in the process of prerequisite waiver. The impact of this process on overall progression rates has been monitored for the past three years by the Dean and Associate Dean (Undergraduate), and evaluations of student progression have demonstrated the effectiveness of this policy in facilitating timely completions without compromising academic standards.

The faculty is keenly aware that a number of undergraduate students are registered with Welfare and Disabilities Services for a number of reasons, and in the past three years, considerable effort has been put into attempting to provide the necessary support for these students. Differential policies apply to these students with respect to applications for special consideration for examinations, and increasingly, special provisions are available for them to complete continuous assessment tasks in conditions which are conducive to optimal performance.

Finally, the faculty First Year Coordinator makes individual contact with all students in 1st year, and is available for consultation by all students for the duration of their undergraduate degree.

Postgraduate

The following section details the annual review of postgraduate research candidates.

How does the faculty ensure the quality of research supervision and training?

As a general policy, the faculty strongly promotes the pursuit and achievement of excellence in research performance by all its staff and students. Evidence of success in this area is found in the significantly superior performance by the faculty in all indicators in comparison with equivalent units within the G08: 74% superiority in overall research performance, 122% higher research load, 108% greater research completions, 45% superiority in publications. The focus on research excellence by staff promotes a climate highly conducive to outstanding research training.

Arrangements for ensuring superior standards of supervision

The section of the faculty's Strategic Plan dealing with postgraduate candidature includes as a critical goal the timely completion of candidatures (priority 3.1) through the promotion, encouragement and rewarding of excellence in scholarship and postgraduate supervision. Under this plan the Postgraduate Committee ensures that all new staff supervising postgraduate students have an academic mentor, all postgraduates have an associate supervisor and all staff are encouraged to attend continuing education in postgraduate supervision offered through the Institute for Teaching and Learning. Furthermore, the faculty is committed to the formation of a supervisors' register which has been proposed by the Research Candidature Working Party of the Faculty of Medicine. This proposal includes establishment of a supervisors' register within the College of Health Sciences, and a range of initiatives designed to improve the quality of the postgraduate experience and to facilitate excellence in supervision. Implementation of this proposal has important implications for Pharmacy since postgraduate candidature within the faculty is overseen by the joint Board of Postgraduate Studies in Dentistry, Medicine and Pharmacy (of which the faculty's Associate Dean (Postgraduate), is Deputy Chair).

Mechanisms in place for ensuring effective completion and retention (priority 3.1)

Progression and completion have been identified as key priorities by the Postgraduate Committee, which has implemented a number of critical strategies to promote and monitor these aspects of postgraduate candidature. The primary strategy involves an annual internal review of all postgraduate candidates for research degrees. This process consists of completion of the annual progress report form, and an interview with candidates in their first year of candidature (or for those requesting an interview). The interview in particular provides opportunities for postgraduate candidates to discuss issues related to the workplace, supervisory relationships, and the faculty in general, or personal issues which are likely to affect progress. These interviews are informal and confidential. A de-identified report is prepared, and submitted, together with the annual report forms, for review by the Postgraduate Committee and the Dean (and Dean's Advisory Committee). Issues of supervisory arrangements and quality are addressed in a confidential manner and actions may be taken based on advice from either students or supervisors.

The annual internal review of all postgraduate students completing research degrees within the faculty and the review by the joint Board of Postgraduate Studies in Dentistry, Medicine and Pharmacy provides a consistent mechanism for identifying issues in postgraduate candidature as soon as possible.

***Additional initiatives of the Postgraduate Committee to support postgraduate candidature include the development of a Progression Guide and an Orientation Program for new postgraduates.** The Progression Guide, developed in consultation with supervisors and postgraduate students, includes a generic set of progression milestones which serve as a guide for both supervisors and students. The Guide is used in conjunction with the postgraduate interviews to assist students in self-evaluation of their progression against agreed benchmarks. The Orientation Program resulted from the observation that the period immediately after commencement of candidature was a critical time in defining "good" habits in postgraduate study. In this program, a strong focus is placed on clarifying the expectations of beginning postgraduates, and on easing the transition from undergraduate to postgraduate study. Practical issues relating to joining the faculty and the academic environment are detailed both through meetings and in a reference website (<http://intranet.pharm.usyd.edu.au/pginfo.htm>).*

Within each sub-discipline, students are formally required to present and defend their research proposals at an early stage of candidature. In addition, all postgraduate students are required to present their research progress on an annual basis in a seminar series arranged and managed by the students themselves. Staff members from all sub-disciplines are encouraged to attend these seminars and to provide appropriate feedback and suggestions for progress. This process provides an excellent opportunity for students to situate their research within a wider perspective and also to take advantage of peer support networks.

Monitoring of the research climate for students and provision of resources to support research

Student feedback on these issues is formally sought through reports from the elected student representatives on the Postgraduate Committee. In addition, issues specific to particular individuals are canvassed and resolved through the annual progress report process described above.

Use of student and/or graduate views to improve the experiences of research higher degree candidates

The Postgraduate Committee includes two student representatives who are elected from amongst the postgraduates enrolled in the faculty's degrees. These representatives alert the committee to issues as they arise, and are responsible for providing feedback to the postgraduates about actions taken as a result. In addition, the Postgraduate Committee holds at least one (generally two) general meetings of postgraduates each year to seek views and communicate issues to all postgraduate students within the faculty.

The postgraduate student representatives are also members of the faculty, and are responsible for the organisation of the postgraduate seminar series.

What are the faculty's arrangements for evaluation and quality improvement, including the use of student and graduate feedback and other performance indicator data to monitor and enhance performance?

At the unit of study level, evaluation is the responsibility of the coordinator and the sub-discipline, and student feedback is regularly sought. The sub-discipline retreats are also critical in the evaluation of quality, and the design and implementation of improvements and enhancements. The Teaching and Learning Committee is in the process of developing policies for the oversight and coordination of the evaluation of all coursework, to ensure that the process is carried out in an orderly manner, and that useful information is gathered without overburdening either students or staff.

Results from the Course Experience Questionnaire and Student Course Experience Questionnaire are considered by the Teaching and Learning Committee. The current curriculum review was initiated as a result of the feedback collected in 1999, in which, as previously indicated, significant areas of concern were identified (priority 1.2). The conduct of this review is supported by a grant from the Teaching Improvement Fund. In addition, a successful application for a grant from the Teaching Improvement Fund was made in 2001, for a research project into quality assurance within the Clinical Pharmacy Practice Placement Program. This placement program is intended to provide high quality, diverse clinical experiences, which will promote self-directed learning, and the project will investigate the experiences of both students and preceptors in order to provide evidence for curriculum development decisions (priority 1.3).

The Teaching and Learning Committee is responsible for monitoring progress towards implementation of the faculty Teaching and Learning Plan through annual review of priorities, annual reporting to the Dean's Advisory Committee, and annual preparation of budgets. The collection and evaluation of teaching performance data is also within the ambit of this Committee. The Dean and Dean's Advisory Committee retain overall responsibility for monitoring the implementation of the faculty's strategic plans in teaching and learning, research and postgraduate training.

SUMMARY AND REFLECTION

Although a relatively new faculty with limited experience in the management of the activities of a faculty, Pharmacy has implemented a number of effective and efficient strategies and structures during its short history. High quality teaching and learning, complemented by outstanding research and research training, is clearly and demonstrably being undertaken by the faculty at present, as evidenced by the substantial expansion in research income, and recent teaching awards which have been gained by faculty members. Cooperation between staff and students is close and cordial, and strong links have been forged between the faculty and the profession. A genuine desire to provide the most rewarding learning experiences for students permeates the faculty, together with an increasing commitment to the scholarly and evidenced-based nature of teaching and learning. Clearly defined processes exist at the level of sub-discipline for implementing, monitoring and reviewing teaching and learning, and effective mechanisms are in place for ensuring the quality of postgraduate research supervision and training. Genuine staff and student concerns in relation to aspects of undergraduate teaching are currently being evaluated and addressed in a systematic and evidence-based manner. The Dean and Dean's Advisory Committee have implemented documented processes for broad review and oversight of procedures and outcomes across all of the faculty's activities.

The faculty continues actively to seek avenues by which it can remain as the pre-eminent faculty of Pharmacy in Australia, and become pre-eminent internationally, both in teaching and research. Exploratory discussions have been held at the Dean's Advisory Committee about the potential for offering a wider range of degree than is currently available, and of investing more directly in research into teaching and learning through development of a pharmacy education unit.

As a relatively new faculty, Pharmacy is still within a transitional phase, in which strategies and structures are being implemented, trialled and fine-tuned. A high proportion of younger staff means that the faculty is vibrant and energetic in both teaching and research, but the corollary is fewer senior and experienced staff members to take on roles of particular responsibility. The challenges presented by the

introduction of new undergraduate and postgraduate programs in 2003 are considerable, in terms of both personnel and infrastructure resources. Nevertheless, the faculty continues to hold firmly to its commitment to excellence in teaching, learning and research, and is confident that it is proceeding in strategic and appropriate directions.

Note: Appendices mentioned in the text are available from the Faculty of Pharmacy or from the Quality Assurance Officer (Teaching and Learning)

Faculty of Pharmacy Teaching and Learning Plan 2002-2004

Context

The Faculty of Pharmacy was established on January 1, 2000 as the eighteenth Faculty of the University of Sydney. It is located in the College of Health Sciences, and offers the Bachelor of Pharmacy degree, a number of graduate coursework programs, and research degrees. In 2001, the first cohort of students graduated from the four-year Bachelor of Pharmacy degree, and the second year of the articulated Herbal Medicines program was delivered. This Teaching and Learning Plan has been designed to articulate with the University and College of Health Sciences Strategic Plans, and should be considered within the context of the relevant goals and values described in these Plans. This Plan articulates with the previous Faculty teaching and Learning Plan 2000-2002. Responsibility for review of the Plan, and evaluation of progress in implementation of strategies and achievement of performance measures, lies jointly with the Teaching and Learning Committee, chaired by the Associate Dean (Undergraduate) and the Programs Committee, chaired by the Associate Dean (Admissions and Administration). These committees were constituted in 2001 as a result of structural reorganisation, and replace the Undergraduate Studies Committee. The Teaching and Learning Committee is responsible for issues relating to teaching and learning at both undergraduate and postgraduate levels, and the Programs Committee is responsible for administrative and organisational aspects.

Strengths

The strengths of the Faculty of Pharmacy include:

- ◆ The ability to attract high quality students, from secondary and tertiary backgrounds, both local and international
- ◆ Strong links with the Pharmacy profession and Pharmacy alumni
- ◆ Recently refurbished teaching and research areas, with excellent access to information and communication technologies
- ◆ A revised undergraduate curriculum which allows students to experience a wider range of learning activities
- ◆ A dynamic research program led by world-class academic and research staff
- ◆ A strong commitment to excellence in teaching
- ◆ A robust nexus between research and teaching
- ◆ A readily-identifiable cohort of students, who are taught as a group from 1st to 4th year
- ◆ An active student association, which facilitates the maintenance of excellent lines of communication between staff and students
- ◆ The position as leading Pharmacy teaching and research institution in Australia

Weaknesses

The weaknesses of the Faculty of Pharmacy include

- ◆ Underutilised links with other units within the University which also teach health care professionals
- ◆ Restricted individual student choice within the undergraduate and graduate coursework programs

- ◆ A history of unfavourable student perception of the undergraduate experience, particularly in the areas of workload and clarity of goals and standards
- ◆ Lack of Aboriginal and Torres Strait Islander students enrolled in the Faculty

Opportunities

The major opportunities available to the Faculty of Pharmacy include:

- ◆ The potential to collaborate with other Faculties in teaching, particular clinical teaching of health care professionals, both at undergraduate and graduate levels
- ◆ The potential to make greater use of information and communication technologies in teaching
- ◆ The potential to draw on the educational expertise within the College of Health Sciences in the maintenance and development of teaching quality
- ◆ The potential to offer modules and units of study in degree programs in Faculties other than Pharmacy, both at undergraduate and graduate levels
- ◆ The potential to contribute to initiatives in rural health through the establishment of a rural Pharmacy program offered predominantly through the Orange campus

Threats

Threats to the Faculty of Pharmacy include:

- ◆ Diminished public funding in the higher education sector, leading to continuing budget cuts
- ◆ The introduction of Pharmacy degrees at an increasing number of Universities within NSW
- ◆ Tensions for staff in finding an appropriate mix of time and resources spent in teaching, research and administration
- ◆ High dependence on income from fee-paying undergraduate students

Goals

Five major goals have been identified, focussing on the achievement of excellence in teaching and learning across the Faculty, and on maintenance of the position of the Faculty at the forefront of pharmacy education both nationally and internationally.

- 1 Continue to attract and retain high quality students, both locally and internationally, into the undergraduate and postgraduate programs.**
- 2 Continue to develop and refine the curriculum of the undergraduate and postgraduate coursework degrees, to produce high quality programs within a mode 2 framework**
- 3 Encourage and reward excellence in teaching and assessment, enhance staff development and encourage scholarship in teaching**
- 4 Expand the funding and resource base for teaching at the undergraduate level**
- 5 Expand the breadth of the undergraduate and postgraduate experience through diversification and globalisation of the learning environment**

Summary of progress achieved in 2001

- Extension of the Orientation and Transition program from a single function in O-Week, to a semester-length program in 2000; in 2001, incorporation of orientation and transition issues into formal coursework

- Establishment of 3 entry scholarships for students with demonstrated outstanding performance in the HSC
- Involvement of the Faculty of Pharmacy in teaching within an external program (within the Faculty of Nursing)
- Involvement of undergraduate students in the major identified marketing activities of the Faculty
- Introduction of revised 1st year curriculum in 2001
- All teaching laboratories and tutorial rooms equipped with computer facilities
- Introduction of videoconferencing into 4th year of the Bachelor of Pharmacy
- Minimum of 3 conference presentations by academic staff relating to educational issues in 2001
- Increase in the number of practitioner-teachers from 10 to 12
- 3 undergraduate students involved in international clinical placements in 2001
- Involvement in 2001 in the University Koori Camp through provision of activities with the Faculty; followed by personal letters to individual participants
- Demonstration of direct link between research and course content/process through presentation of 3 papers at the Vice-Chancellor's Showcase of Scholarly Inquiry in Teaching and Learning
- Review of the role of honorary appointments in teaching
- Investigation of the potential for greater involvement in Study Abroad and student exchange programs

Priority objectives for 2002

- Review of 2nd and 3rd year curriculum
- Development and publication, in conjunction with students, of a Student Handbook and Code of Conduct
- Critical evaluation of historical UAC application data and development of strategies for targeted marketing
- Increased exposure of potential indigenous students to pharmacy through clinical placements in indigenous health care settings and targeted visits to high schools with large number of indigenous students
- Development and implementation of a coordinated program of unit of study review, to ensure that all units of study are evaluated on a three-year cycle
- Development of Faculty-specific forms of evaluation to complement standard ITL forms
- Development and implementation of processes for reporting results of reviews and evaluations, together with changes introduced as a result
- Achieve approval for the 2003 introduction of the Bachelor of Pharmacy (Rural), offered primarily through the Orange campus, and an articulated postgraduate program in Industrial Pharmacy
- Production of an options paper reviewing possibilities for participation by the Faculty in all levels of pharmacy education, including continuing professional education for practitioners
- At least 5 publications or conference presentations by academic staff relating to educational issues
- Establishment of at least one formal student exchange program established

Strategies and performance measures

GOAL 1

Continue to attract and retain high quality students, both locally and internationally, into the undergraduate and postgraduate programs.

Strategy	Performance measures
<p><i>*Regularly monitoring student opinions to ascertain methods by which the student experience can be maintained as positive and rewarding</i></p> <p>+TLC</p>	<p>10% improvement in Overall Satisfaction of SCEQ for 1st year 2001 using 2000 as baseline, following introduction of revised curriculum, and corresponding improvements following the introduction of revised curricula for higher years</p> <p>Maintenance of regular staff-student meetings, with annual reporting of the issues raised and resulting outcomes to the teaching and Learning Committee</p> <p>Development and publication, in conjunction with students, of a Student Handbook and Code of Conduct in 2002</p>
<p><i>Ensuring that an effective and efficient marketing program is designed and implemented, in collaboration with the College of Health Sciences and University where possible</i></p> <p>PC</p>	<p>In 2002, critical evaluation of historical UAC application data and development of strategies for targeted marketing</p> <p>Targets set for increases in applications through UAC for 2004 entry, including increases in first preference applications</p> <p>Participation in all appropriate University and College marketing/outreach programs</p> <p>All members of academic staff involved in at least one marketing/outreach activity for a minimum of 2 hours each year</p>
<p><i>Providing incentives to encourage applications from the most intellectually able students</i></p> <p>PC</p>	<p>Maintenance of at least 3 entry scholarships established for commencing students who have demonstrated outstanding performance in the HSC</p> <p>Targets set for increases in applications by students with a UAI of 95 or greater, for 2004 entry</p>
<p><i>Specifically targeting under-represented groups, particularly Aboriginal and Torres Strait Islander students</i></p> <p>PC</p>	<p>Increased exposure of potential indigenous students to pharmacy through clinical placements in indigenous health care settings and targeted visits to high schools with large number of indigenous students</p>
<p>Monitoring progression and pass rates as part of a set of performance indicators</p> <p>TLC</p>	<p>Maintenance of EFTSU load pass rates at 93-95%</p>
<p><i>Utilising students in marketing and outreach programs</i></p> <p>PC</p>	<p>Involvement of undergraduate students in the major identified marketing activities of the Faculty</p>

**** Strategies which are highlighted and italicised are those accorded the highest priority.***

+ TLC means the Teaching and Learning Committee has responsibility for this item; PC means that the item is the responsibility of the Programs Committee

GOAL 2

Continue to develop and refine the curriculum of the undergraduate and postgraduate coursework degrees, to produce high quality programs within a mode 2 framework

Strategy	Performance measurement
<p><i>Carrying out a progressive, systematic review of each year of the four year undergraduate curriculum, using appropriate evaluation mechanisms, specifically targetting clarity in goals and standards, assessment and workload, with input from staff, students, graduates and employers, and ensuring the results are taken into account in curriculum review</i> TLC</p>	<p>Review of 2nd and 3rd year curriculum carried out in 2001-2 with any revision to curriculum introduced in 2004 Formal feedback, including details of outcomes, provided to all groups involved in review Development and implementation of a coordinated program of unit of study review, commencing in 2002, to ensure that all units of study are evaluated on a three-year cycle Development in 2002 of Faculty-specific forms of evaluation to complement standard ITL forms Development and implementation of processes for reporting results of reviews and evaluations, together with changes introduced as a result</p>
<p><i>Increasing the extent of constructive alignment between learning outcomes, assessment and teaching methods</i> TLC</p>	<p>Revised Faculty unit of study template, developed in 2002 and implemented in 2003, to emphasise integration of these aspects</p>
<p>Developing a Talented Student Program encompassing all years of the undergraduate degree TLC</p>	<p>Talented Student Program ready for implementation in 1st year in 2002, and in 2nd year in 2003</p>
<p><i>Encouraging an integrated approach to curriculum design and delivery</i> TLC</p>	<p>Expansion of intra-Faculty cross-disciplinary teaching into at least one unit of study in each year of the undergraduate curriculum by 2004</p>
<p><i>Collaborating with the College of Health Sciences and its constituent Faculties in the development of cross-disciplinary teaching opportunities and mechanisms at both undergraduate and postgraduate levels</i> TLC</p>	<p>Pilot collaborative teaching program, including Pharmacy together with Medical and/or Nursing students, ready for implementation in 2004 Involvement in at least one College teaching grant application each year</p>
<p><i>Optimising the use of information technologies in undergraduate teaching and learning</i> TLC</p>	<p>Introduction of videoconferencing into 3rd year in 2003 Incorporation and integration of relevant communication and information technologies in the design and delivery of the Bachelor of Pharmacy (Rural)</p>
<p><i>Expansion of the use of problem-based learning methodologies</i> TLC</p>	<p>Inclusion of PBL into the 3rd year curriculum in 2003 Inclusion of PBL into all years as a result of curriculum review</p>

Strategy	Performance measurement
Encouragement of increased nexus between research and teaching in Pharmacy TLC	Demonstration of direct link between course content and/or process and research in 6 units of study in 2003 By end 2002, acceptance for publication in peer-reviewed journals of 3 papers dealing with the impact of research on teaching, increasing to 8 by end 2004
Expanding the range of undergraduate and postgraduate programs offered by the Faculty TLC	Introduction of Bachelor of Pharmacy (Rural), offered primarily through the Orange campus, in 2003 Introduction of an articulated postgraduate program in Industrial Pharmacy in 2003 Development in 2002 of a module for undergraduate students on health care issues of indigenous people
<i>Review of the philosophical underpinnings of pharmacy education provided by the Faculty</i> TLC	Production of an options paper by the end of 2002, reviewing possibilities for participation by the Faculty in all levels of pharmacy education, including continuing professional education for practitioners

GOAL 3

Encourage and reward excellence in teaching and assessment, enhance staff development and encourage scholarship in the teaching of Pharmacy

Strategy	Performance measurement
Provision of adequate support for academic staff who wish to pursue formal qualifications in teaching and learning TLC	At least one member of staff each year enrolled in Graduate Certificate in Educational Studies or equivalent By end 2002, at least 20% of academic staff with formal qualifications at Graduate Certificate level or equivalent Up to 30 hours per semester teaching relief provided to academic staff enrolled in courses for formal qualifications
<i>Encouraging educational research and participation in educational conferences and scholarly meetings</i> TLC	Increase of at least 5% per annum in the number of academic staff attending and participating in educational conferences and scholarly meetings At least 5 publications or conference presentations by academic staff relating to educational issues in 2002, increasing to 10 in 2004
Collaborating with the DEDE (Faculty of Medicine), and the Institute of Teaching and Learning in the implementation of staff support and training systems TLC	Faculty-specific workshops on teaching ready for implementation in 2002 All new postgraduate students who are employed as teachers participating in an appropriate introduction to teaching program by 2003
Provision of incentives for excellence in teaching and learning TLC	Institution in 2002 of two annual awards for teaching excellence, one of which is open to postgraduate students only Introduction in 2002 of an annual Teaching Forum for sharing information and disseminating excellent practice and outcomes

GOAL 4

Expand the funding and resource base for teaching at the undergraduate level

Strategy	Performance measurement
Seek external funds to increase the number of practitioner-teachers employed by the Faculty TLC	Increase the number from 12 at the end of 2001 to 15 by the end of 2002.
Establish a Chair in Rural and Remote Pharmacy TLC	Pending confirmation of funding, Chair established by the end of 2002, and position advertised in early 2003.
Review and expand the teaching carried out by honorary academic appointees TLC	By end 2002, strategies devised for optimal utilisation of the expertise of honorary appointments

GOAL 5

Expand the breadth of the undergraduate and postgraduate experience through diversification and globalisation of the learning environment

Strategy	Performance measurement
Establishment of teaching and learning links with appropriate overseas institutions and experts TLC	Agreements established with 3 international sites by end 2002 for videoconferencing in undergraduate classrooms At least 2 students participating in international clinical placements in 2002, increasing to 6 in 2004
Establishment of formal and informal student exchange programs with Pharmacy schools in Australia and overseas PC	At least one formal student exchange program established by end 2002 Students from the University of Sydney Faculty of Pharmacy participating in at least one exchange program in 2003