

# OUTLINE OF FACULTY REPORT

## Annual Faculty Planning and Resource Process for 2004

February 2003

### 1 Faculty Direction and Profile

In a quality system, faculty activities and programs should realise the planning objectives of (1) the University Strategic Plan (including the component plans), and (2) the Faculty Plan. The University Vision and Mission are cited below. You are asked to provide you Faculty Vision and Profile statements.

#### **University Vision**

The University of Wollongong will enhance its position as a research institution with an international reputation for high quality, student-centred undergraduate and graduate education.

#### **University Mission**

The University of Wollongong will continue to explore, develop and use human and technological capacity for the benefit of its region, the nation and the international community.

#### **1.1 Intended Faculty Direction:**

After a period of rapid growth, the Faculty is looking to consolidation.

During this consolidation period, the Faculty will continue with its efforts to enhance its reputation, both nationally and internationally, through continued improvements in the quality of both its teaching and its students as well as to its already-considerable research reputation and output.

Consolidation and expansion of scope within Asia is envisaged as is developments in a number of niche markets internationally.

#### **1.2 Faculty Profile: *(ie distinctive character)***

The Faculty of Informatics was formed in 1991 and leads the focus in the ICT arena with its unique mix of schools and research centres which positions it at the forefront for innovation in its area. Currently, it enjoys an excellent position within the University of Wollongong in terms of research, student numbers overall, and international students specifically, with the Faculty being their preferred destination.

The Faculty's undergraduate programs are work-place focused and its teaching at postgraduate level is research-driven. These foci result in graduates who are in high demand and attain concomitant high salaries. Recognising its student-centred focus, the Faculty supports initiatives such as the centralised Student Enquiry Centre, the Peer Assisted Student Support program and use of the Centre for Learning Development.

With a balanced mix of established and new disciplines supported by a staffing body with an eclectic mix of theoretical and practical skills and experience, the Faculty is also consulting-active sustaining solid and varied industry links.

The Faculty is the second largest on campus with a total EFTSU in 2002 of 2523.7 as against 2026.3 in 2001. Of the 2002 total, 116.5 were Research EFTSU as compared to 93.6 in 2001.

International students totalled 1229.5 EFTSU in 2002, of which 386 were Off-Shore and 28.4 were Research. In 2001, International students numbered 835.2 EFTSU, of which 259.4 were Off-Shore and 26.6 were Research. International enrolments in on-shore courses increased by 45% in 2002 over 2001 and in off-shore courses by 49%.

The Faculty has an excellent research reputation both nationally and internationally. This exemplifies that, despite the Faculty's rapid growth and significant increase in student numbers, research income totalled \$3.2m for the year and publications numbered 222, an increase in publication output of 48% over the previous year.

The Faculty supports strong research links with universities in Manchester, Southampton, Nottingham, and Graz – Austria, as well as the Huazhong University of Science and Technology, Zhengzhou University, Shangdong University, and the Zhengzhou Institute for Light Industry, and also enjoys Alumni connections with INTI College, Kuching and the Dubai Campus.

Off-Shore partnerships with ABRS in Hong Kong, Private College in Singapore and Inti College in Sarawak are complemented by twinning arrangements in countries such as Chile, China and Thailand.

The Faculty also enjoys articulation arrangements with Sweden, China, Thailand, Indonesia, Malaysia, Singapore, Hong Kong and Bangladesh whilst maintaining exchange agreements for research collaboration for students and staff in Norway, France, Germany and Korea.

### **1.3 Summary of action planned for 2003-2004**

1. Develop generalist Maths and Stats subjects across campus
2. Review degrees and delivery at all sites
3. Establish a Dean's Scholars program
4. Foster School cross-fertilisation and Faculty networking
5. Improve Faculty research enterprise through staff career development and strategic planning for grants
6. Improve teaching quality through providing speech modification for identified staff and encouraging and supporting OCTAL and ESDF staff nominations
7. Develop international student diversification and grow numbers
8. Increase domestic research student numbers and improve the research experience
9. Review current research training methods.

### **1.4 Summary of action planned for beyond 2004**

1. Improve first-year pass rates
2. Review TAFE articulation arrangements
3. Review degrees, labs and lab experiments
4. Ensure quality assurance policies in place for remote campuses
5. Improve median UAI of student intake
6. Facilitate international and/or inter-institutional research
7. Increase student satisfaction levels
8. Increase the number of successful quality grant applications; increase number of research-active staff.

## 2 Faculty Planning for Core Business Activities

### 2.1 Learning and Teaching

#### 2.1.1 Review of 2002 Activities and Objectives

<i>Learning and Teaching Objective/s for 2002</i>	<i>Outcomes and Progress Against Objectives</i>	<i>Is revision of the strategies to achieve these objectives, or improve the outcomes, required?</i>
To provide a good learning environment, with happy students who have a good overall experience in the Faculty	In a recent Student Satisfaction Survey, 72.7% of Domestic Students strongly agreed with the statement that they were satisfied with the quality of their course, as against an average 70% over the previous three years. All new staff undertook ITT program.	Various revised strategies, eg improve student satisfaction levels, are outlined through the parts of the document which speak to teaching and learning objectives.
To continued to produce the most sought-after and useful graduates	Systems developed to ensure quality control, documentation of operational agreements and student administration matters. As a result, the reputation of the Faculty has grown in Malaysia, Singapore and Hong Kong as a result of quality programs delivered in those countries which has resulted in a flow-on to onshore student enrolments and increased approaches from potential providers to deliver offshore programs. First intake into Bachelor of Engineering (Internet) and Bachelor of Computer Bioinformatics. Undertook quantitative and qualitative analysis of student grades as quality assurance exercise. Developed and approved for 2003, Master of Health Informatics, Graduate Certificate in Health Informatics, Master of Digital Multimedia and Bachelor of Computer Geoinformatics.	(as above)

<i>Learning and Teaching Objective/s for 2002</i>	<i>Outcomes and Progress Against Objectives</i>	<i>Is revision of the strategies to achieve these objectives, or improve the outcomes, required?</i>
To be a world player in teaching and to establish an international reputation for high quality delivery of our offshore programs.	Fastest-growing Faculty for international students. Leader and innovator in off-shore programs providing an international curriculum supported by a culturally diverse mix of staff.	Limited access to Library and other resources. On-line delivery and support (WebCT) DIMIA changes. Current international climate.
To utilise the early entry scheme to benefit the whole Faculty.	Scheme administered by Faculty for 2002, developing an innovative marketing campaign resulting in a record number of registrations.	Currently performing analysis of Early Entry progress as against other entry gateways.
To improve the % of enrolments from Southern Sydney.	As with the University's general increase in share from this sector of the market, the Faculty also increased its % of enrolments from Southern Sydney (although exact figures are not available)	Overall strategy is under continual review through the Faculty's Marketing Committee and new strategies developed and implemented.

### 2.1.2 Milestones and Awards

- Development of NSW Board of Studies-approved Informatics subject for delivery at Caringbah High School (INFO101).
- Contributed to development of Bachelor of Mathematics Education and Bachelor of Science Education degrees for offering at the Loftus campus in 2003.
- Introduced Staff mentoring through Personal Academic Mentoring (PAM) program.
- Tutor Coordinator role defined and created to improve communication between lecturers, tutors and school.
- Student Enquiries Centre created providing a "one-stop-shop" and providing access to on-line computers, forms, course information, after-hours PIN access to Building 3 labs and extra print quota.
- Student Trade Fair hosting 26 groups (approx 220 students) attracting industry, media and campus interest.
- Full complement of student representatives for the first time incorporating a newly developed Orientation program.
- Off-shore teaching with supporting staff increasing from five in 2001 to 11 currently.
- Advanced Standing agreements increased from 28 to 35 and participating countries also broadened from 10 to 13. Agreements for future collaboration with academic institutions increased from 9 to 14.
- Quantitative and qualitative failure rate analysis resulting in the institution of the PASS program.
- Innovative early entry marketing program resulting in widespread free publicity realising nearly 300 registrations for the program, a 30% increase over the previous year.
- Space in Building 39 acquired for more student labs.

- NTEU survey attesting to the well-organised study leave process demonstrated within the Faculty by showing that no request for study leave had been refused in two years.
- New lab opened, named in honour of Tom Horner, containing specialised mathematics and statistical software-enabled PCs.
- Flexible delivery of subjects through WebCT.
- Scholarships and cadetships secured from the Australian Bureau of Statistics.
- Expanded vocational training courses, eg CISCO regional academy.

## Learning and Teaching Objectives for 2004 and Beyond

*NB Please rank each of your objectives (this can be within each section, or overall, as appropriate for your faculty)*

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>2.1.3 Student Learning: subject and course quality; the development of the UOW graduate attributes; internationalisation</b>					
Improve first year outcomes	Improve pass rate.	Improvement in pass rate and in follow-on subjects	2005	Heads of Schools and FEC	Quality of intake. Quality of subject delivery
<i>(continued)</i>	Implement pre-tests early in session to identify students requiring extra assistance.	Funds secured and pre-tests implemented.	2005	Faculty Education Committee	Funds ( <i>seeking Strategic Development Fund support</i> )
<i>(continued)</i>	Utilise PASS program	Comparative statistics of student participation and exam outcomes.	Ongoing	Heads of Schools	Funds
<i>(continued)</i>	Evaluate assessment practices	Completed evaluation with recommendations implemented	2005	Sub-Dean to co-ordinate	Time resource.
Increase the number of students going on exchange	Set up scholarship program to Europe.	Increase in numbers.	2005	Faculty International Manager.	Student apathy; funding support ( <i>seeking Strategic Development Fund support</i> )
Increase contribution to cross-Faculty subjects	Develop generalist Maths and Stats subjects across campus	Student enrolment numbers	2004	SMAS	General student dislike of Maths and Stats.

<i>Objective/s*</i>	<i>Strategy/ies</i>	<i>How do you intend to measure progress</i>	<i>Timeline for implementation</i>	<i>Responsibility for implementation</i>	<i>Constraints / "Roadblocks"</i>
<b>2.1.4 Program Development: design quality teaching programs with appropriate levels of support; internationalisation</b>					
Maintain or improve quality and relevance of the Faculty's degrees.	Review degrees regularly	Number of degrees reviewed and when	2005	Faculty Education Committee	Resources
<i>(continued)</i>	Review Labs	Completed review	2004	Heads of School	Staff workloads
<i>(continued)</i>	Develop new, more up-to-date experiments	Number of experiments developed	2005	Heads of Schools	Shortage of IT support staff
<i>(continued)</i>	Increase computing in Maths and Stats subjects	Number of subjects with computing content	2005	SITACS and SMAS	Staff workloads
Ensure consistency of quality delivery at all sites	Review current procedure	Review completed	2004	Faculty's International Office along with the Satellite campus co-ordinator	Resources
<i>(continued)</i>	Ensure quality assurance policies in place for remote campuses	Quality Assurances policies in place for remote campuses	2005	.Faculty Education Committee	Resources
Improve quality of student intake	Improve median UAI	Comparison of UAIs.	2005	Faculty Marketing Committee	External competition
<i>(continued)</i>	Establish a Dean's Scholars program	Ready for intake	2004	Heads of Schools	Scarce time resources
<i>(continued)</i>	Review TAFE articulation arrangements	Review completed	2005	Sub Dean and Faculty Education Committee	Resources

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>2.1.5 Teaching: support quality teaching and professionalism; internationalisation</b>					
Foster integration and cooperation between the Faculty's three schools	Cross-school teaching and co-supervision	Number of subjects taught across Schools and number of research students co-supervised across Schools	2004	Dean and Heads of Schools	Ingrained culture. Lack of space. Scheduling resources
<i>(continued)</i>	Cross-school representatives at School meetings	Existence of these reps	2004	Heads of Schools	None
<i>(continued)</i>	Increased Faculty networking activities	Number of activities over previous year	2004	Dean and Heads	Staff participation and time
Provide staff development for remote and off-shore teaching delivery	Develop collaborative tools to facilitate interaction between campuses and other partners	Utilise annual Academic Career interview to determine the level of staff confidence, the number attending training and the number of staff with mentors	Two rounds of Academic Career interviews	Dean and Heads of Schools	Resources and staff time
<i>(continued)</i>	Update teaching skills on web authoring and on-line tools through UoW-delivered workshops and training, mentoring and peer support	Staff participation levels	Ongoing	Dean and Heads of School	Workloads
<i>(continued)</i>	Identify easy-to-use technologies and tools.	Increase in tools and staff usage levels	Ongoing	Faculty IT Committee	Staff usage and funds
Better quality teaching.	Speech modification for identified staff	Evaluation of subjects	2004/05	Dean and Heads of School	Staff willingness to participate
<i>(continued)</i>	Encourage and support OCTAL and ESDF nominations	Number of recognised or nominated	2004/05	Dean and Heads of School	Staff willingness to participate

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>Any other objectives regarding learning and teaching</b>					
Diversify international on-shore student population.	Develop new international student markets, with a particular focus on parts of Asia previously neglected.	Achievement of international student targets in new 'priority' markets.	International student enrolments from new markets by Semester II, 2004	Faculty International Office	Market competition. DIMIA regulations. SARS
<i>(continued)</i>	Retain market share and quality of students in traditional markets with comprehensive, integrated campaigns that include interview programs, seminars and institutional visits. .	International targets in traditional markets to be consolidated with a greater emphasis on recruiting quality higher degree by research (HDR) students with an increase in pass rates.	Semester II, 2004	Faculty International Office	(as above)
<i>(continued)</i>	Targeting of high-quality research students to increase UoW standing abroad	<i>(as above)</i>	<i>(as above)</i>	<i>(as above)</i>	As above including endemic institutional constraints
<i>(continued)</i>	Increased in-country marketing liaison and support for agents in non-traditional markets.	25% increase in communication and visits to agents in these regions..	Semester II, 2004.	Faculty International Office.	As above including funding
<i>(continued)</i>	Setting competitive entry levels (academic and English language) in line with institutions that are strong competitors in key markets	Benchmarking with similar universities	Semester II, 2004.	Faculty International Office.	Minimal

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<i>(continued)</i>	Increase study abroad/exchange agreements in non-traditional markets	Increase in agreements.	Semester II, 2004.	Faculty International Office.	DIMIA regulations. SARS. Gaining entry to traditionally-closed markets.
Increase student quality and numbers at remote and offshore campuses.	Targeted marketing campaign.	Comparison of quality and numbers pre and post campaigns.		Faculty International Unit. Faculty Marketing Committee.	DIMIA regulations. SARS. Student resistance.
Redistribute student load within the Faculty	Targeted marketing	Increase in EFTSU in SMAS and SECTE.	2004/05	Faculty Marketing Committee.	International market conditions
<i>(continued)</i>	Development of new Maths and Finance Masters Degree.	Program up and running	2004	SMAS	Selling Maths degrees to high school students
<i>(continued)</i>	Increase number of 1+1 contracts for MIT		2004	Faculty International Office and SECTE	
Improve quality of student experience.	Increase student retention rates through continuous improvement processes.	Increased retention rate	2005	Dean and Heads of Schools	Heavy workloads
<i>(continued)</i>	Improve student satisfaction levels	Continue to increase student satisfaction levels as measured by UoW Student Satisfaction Survey	Ongoing		

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<i>(continued)</i>	Joint initiative with the Commerce Faculty to implement a quality assurance process at the Dubai campus focused on improving the interaction between Dubai and UoW teaching staff.	Increase in subjects jointly taught	2004	Faculty International Office and Commerce Faculty	Funding ( <i>seeking Strategic Development Fund support</i> )

## 2.2 Research

### 2.2.1 Review of 2002 Activities and Objectives

<i>Research Objective/s for 2002</i>	<i>Outcomes and Progress Against Objectives*</i>	<i>Is revision of the strategies to achieve these objectives, or improve the outcomes, required?</i>
To increase the number of Postgraduate Research students, especially domestic students.	<ul style="list-style-type: none"> <li>Advertisement highlighting Faculty research strengths placed in Sydney Morning Herald and the Australian Education supplements in September prior to Research Scholarship application deadline. Information also placed on Faculty website.</li> <li>Provided 23 undergraduate students with the opportunity to participate in the Summer Vacation Research Scholarship Program.</li> </ul>	<ul style="list-style-type: none"> <li>It is difficult to measure the benefit of advertising, however the Faculty will continue to advertise strategically while investigating possible additional direct marketing alternatives.</li> <li>Other marketing initiatives were proposed, but were not carried out due to lack of resources. It was also perhaps a little over-ambitious to expect completion of all initiatives in a one-year period.</li> </ul>
To provide new research students with a comprehensive introduction to the Faculty.	Participated in the University Postgraduate Research Student Orientation Program by hosting a lunch for incoming research students – approximately 20 new students attended in 2002. Students were introduced to the Dean, Heads of Schools, Institute Directors, School Research Coordinators, Supervisors and a small number of current research students.	Faculty currently improving online research information provided to all research students – this is necessary in addition to current activities to form an introductory 'package' for students, and to ensure that up to date information is readily available.
To provide a more cohesive and supportive environment for supervisors and ensure quality supervision across the Faculty.	<ul style="list-style-type: none"> <li>Mentoring of new staff through joint supervision with experienced supervisors.</li> <li>New research student supervisor workshops held in Schools.</li> </ul>	<ul style="list-style-type: none"> <li>The Faculty Research Committee intended to examine the report of an ESDF-funded project on research supervision, however it was not completed by the end of 2002. It is hoped this can take place during 2003.</li> <li>Faculty intends to improve new research student supervisor workshops to ensure occurs across the Faculty</li> </ul>
To ensure the Faculty provides adequate and accurate information to its research students.		Very little was achieved in relation to improving online research information about entitlements etc due to resourcing. However, the Faculty intends to improve online research information over the next 6 months.
To enhance the quality of research training by providing research students with a more fulfilling research experience.	Research dinner with the Dean held to provide a forum for spontaneous feedback about research experiences in the Faculty.	

<b>Research Objective/s for 2002</b>	<b>Outcomes and Progress Against Objectives*</b>	<b>Is revision of the strategies to achieve these objectives, or improve the outcomes, required?</b>
To provide research students with relevant computer facilities and assist in the development of relevant IT skills, where not already developed.	Students provided feedback about current requirements at research dinner and indicated satisfaction with adequacy and currency of computer hardware, software and skills training. However, one concern raised about access to computer support for off-campus research students.	
To identify and assist over-time students and those at risk of going over-time to ensure quality research output within required completion times.	The Faculty Research Committee considered the implementation of a student 'buddy' system and concluded that the current voluntary 'guidance' provided by peers was preferred as the formal implementation of such a system could place a burden on the 'mentor'.	
To encourage and assist staff to participate in research, to produce high scholarly research and undertake a significant amount of R&D	<ul style="list-style-type: none"> <li>Grant writing workshops and mentoring of new staff programs established.</li> <li>Personal Academic Mentoring (PAM) program continued.</li> </ul>	Not as many grant writing workshops were held as expected due to time constraints.
To grow number of research grants	<ul style="list-style-type: none"> <li>39 grants achieved securing a total of \$986, 356.00.</li> <li>Faculty awarded Link grant in association with Powerlink (QLD)</li> </ul>	
To encourage collaborative research within and between the Institutes' programs	<ul style="list-style-type: none"> <li>Strong international links forged, specifically with Southampton and Manchester Universities.</li> <li>Extensive program of visits, involving eight different researchers, with the UK funded by IREX grant.</li> <li>Research collaborative program (funded by IREX grant) with Huazhong University of Science and Technology (China).</li> </ul>	

### 2.2.2 Milestones and Awards

The Annual Report to parliament notes special achievements of staff or the faculty as a whole. Are there any particularly noteworthy achievements you would like mentioned? (eg national recognition, innovative or "leading edge" research, research partnerships, significant conferences/symposiums, etc).

Faculty Research Training and Management Plan

- Thirty-nine successful competitive grants plus CRC funding totalling \$3.2m achieved.
- Twenty-one HDR students graduated (15 PhD and 6 Masters) which represents the second highest completion rate across campus.

- Publication Success with an increase of 48% overall and 24% in DEST publications.
- Faculty won Postdoctoral Fellowship and two APA-I Linkage grants.
- One staff member applied for a Federation Fellowship, an indication of their international status within their discipline.
- Provided liaison to BHP on mathematical and statistical consulting projects.
- Secured research contracts with NSW Health and IRI;
- Part of successful bid for new CRC for Desert Knowledge.
- Research area initiated in Bioinformatics involving computational and statistical analysis of the human genome.
- New e-Health initiative established a strong network of external collaborations and a new Masters by coursework program.
- Integral Energy Power Quality Centre Agreement renewed for years 7-9.

## Research Objectives for 2004 and Beyond

*NB Please rank each of your objectives (this can be within each section, or overall, as appropriate for your faculty)*

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>2.2.3 Research Training</b>					
To increase the number of quality research students, especially domestic students	Create innovative and interesting research marketing material and targeted advertisements	Increase in postgraduate research student numbers	Ongoing	FRC Chair, Schools' PG Research Co-ordinators and Research Admin	Financial constraints: advertising is costly. No guarantee that stories will be published by media agencies.
<i>(continued)</i>	Implement internal advertising campaign and/or mentoring system to target current high-achieving undergraduate and postgraduate coursework students who have the potential for research study	<ul style="list-style-type: none"> <li>- # of honours completions</li> <li>- # of honours students to research degree</li> <li>- # of pg coursework to research conversions</li> </ul>	Spring Session 2004	FRC Chair, Schools' PG Research Co-ordinators and Research Admin	Many high-achieving students prefer to enter directly into the workforce rather than undertake research studies.
To provide a quality research training experience for current research students	Continue to host a lunch for incoming postgraduate research students as part of University Orientation Program for the purpose of providing appropriate research information and an introduction to relevant staff	Attendance and feedback	Ongoing	FRC Chair	None
<i>(continued)</i>	Hold annual or biannual Dean's Research Student Dinner to provide a forum for spontaneous feedback and suggestions about the research training experience in the Faculty	Attendance and feedback received. Action resulting and further feedback	Mid year 2004 (possibly end of 2004) and so on.	FRC Chair	Funding
<i>(continued)</i>	Review and improve online information for research students	Completion of review and feedback	Ongoing	Faculty Research Office	Funding

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
To reduce the number of over-time students and improve completion rates without compromising quality research output	Mentoring of students re efficient work habits, with particular attention to be paid to over-time or 'at risk' students	PhD completions	Ongoing	Supervisors and FRC	Unforeseen personal problems and/or student apathy
<i>(continued)</i>	Identify over-time or 'at risk' students and appoint a second supervisor, if there is not one currently, to be responsible for initiating corrective action, providing counselling/mentoring and monitoring the student's progress	PhD completions	Ongoing	School PG Coordinators and Supervisors	Unavailability of second supervisor due to time/workload restrictions.
To ensure that the University Research Graduate Attributes are incorporated into the training of research students	Encourage research students to undertake ILIP009	Number of student completing ILIP009	Ongoing	School PG Coordinators and Supervisors	Student apathy.
<i>(continued)</i>	Review current research training methods to identify incorporated research graduate attributes, and implement changes if required	Review completed	2004	FRC and School PG Coordinators	Time and workloads.
To increase the number of quality supervisors	Encourage relevant staff to undertake a PhD and provide support to those currently undertaking a PhD to ensure completion in minimum time	Number of staff with PhDs	Ongoing	Institute Directors and Heads of Schools	Time/workload restrictions. Resources

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<i>(continued)</i>	Encourage experienced supervisors to engage new and/or inexperienced staff to co-supervise research students	Number of inexperienced staff co-supervising	Ongoing	School PG Coordinators	Time/workload restrictions. Resources
<i>(continued)</i>	Encourage the appointment of a second supervisor from a different or related discipline where a supervisor is overloaded	Distribution of research supervision across the three Schools	Ongoing	FRC & School PG Coordinators	Time/workload restrictions. Resources

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>2.2.4 External Grants and Contracts</b>					
To increase the number of successful quality grant applications (eg ARCs, CRCs, etc)	Conduct biannual grant application workshops.	Number of attendees & conversion into successful grant applications	Ongoing	FRC Chair	Lack of quality research time.
<i>(continued)</i>	Programs and Institutes to provide assistance with grant applications	Number of successful grant applications	Ongoing	FRC Chair	Lack of quality research time.
<i>(continued)</i>	Creation of a Research timetable or calendar specifying important dates such as when particular grant schemes fall due	Successful implementation	Early 2004	Faculty Research Office	Funding

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>2.2.5 Collaboration and Strategic Alliances</b>					
Facilitation of international and or inter-institutional research	Invite more visiting international academics	Number of international seminars	2 years	Dean and Heads of Research centres.	Necessary supporting funds
Increase CRC based research, especially with new CRC's.	By encouragement	Number of those participating	2 years	Heads of Research centres and senior staff	Number of people willing to attend

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>2.2.6 Recruitment, Career Development and Mentoring of Research Active Staff</b>					
To increase the number of research-active staff.	Provide assistance with grant applications	Success rate	9 months and ongoing	FRC Chair, senior staff	Willingness to seek assistance
<i>(continued)</i>	Provide workshops covering topics such as preparation of journal publications, research techniques, and statistics of research data etc	Increase in the number of quality publications.	Ongoing	FRC Chair, senior staff	Time to attend workshops
<i>(continued)</i>	Participation in new staff orientation and information sessions	By attendance	Ongoing	FRC Chair, senior staff	none
Support research-active staff	To ensure workloads allow for 30% research time.	Workload model.	6 months and ongoing	Dean and Heads	Quality time to undertake research
<i>(continued)</i>	Implement programs such as teaching buy-outs.	Number of research-active staff gaining extra time for research	Ongoing	Dean and Heads	Funding

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>2.2.7 Research Informing Teaching (the "Research – Teaching Nexus")</b>					
Enhance relationship between teaching and research.	Staff to use their own research as integral part of their teaching. Students to be made aware of research activities and the subsequent relationship with their subject/course directions.	Number of students completing Honours and undertaking a research degree.	Ongoing	All teaching staff	Workloads, timetabling and core curriculum needs.

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
<b>Any other objectives regarding research</b>					
Provide infrastructure support for Research within the Faculty.	Create a Faculty Research Office.	Appointment of a Project Officer.	Immediate	Dean	Funds (seeking Strategic Development Fund support)
Develop a Faculty research culture	Restructure Faculty Research Committee	Improved research output.	Ongoing	FRC Chair and Deputy Chair	Entrenched culture
	Develop 5-year Strategic Research Plan	Receipt of final plan	2005	FRC and Dean	Faculty consensus
Raise profile and quality of Faculty's research output.	Creation of the new Faculty Research Web site	Existence or otherwise	3 months and ongoing	Faculty Research Office	Resources
<i>(continued)</i>	Establishment of a Web based Faculty Research Database	Existence or otherwise	6 months and ongoing	Faculty Research Office	Resources/Funds
<i>(continued)</i>	Review, development & implementation of research policies & procedures within the Faculty.	Overall research success	By end 2004	Faculty Research Office	None
<i>(continued)</i>	Incorporation of Research Report into Faculty's Annual Report	Existence or otherwise	2004	Faculty Research Office	Resources
<i>(continued)</i>	Benchmark research performance against other high calibre tertiary institutions.	Development of recommendations from benchmarking	By end 2004 and ongoing	FRC Chair and FRC Project officer	Obtaining relevant benchmarking data.

### 3 Fostering Outreach Activities

#### What noteworthy community service activities are staff in your faculty involved in?

- Dean a member of The Illawarra Connection;
- Dean a member of the Illawarra Regional Development Board;
- Supported, with Faculty representation, the Maths Whiz exhibition organised by Glen Moore;
- Early Entry Program;
- Faculty representatives at High School presentation nights to present Faculty's Yr.10 Maths prize;
- SITACS part of IBM's Scholar Program and its 'Certified for e-Business' resulting in major deployment of e-Business Software Development Environment in labs free of charge (normal cost approx A\$1.9 million);
- Prof David Steel, member of ABS' Methodological Advisory Committee;
- Relationships with significant commercial partners, eg Telstra, Motorola, Canon, Sun, Nortel, DSTO etc.
- Provide liaison to BHP on mathematical and statistical consulting projects.
- Participation in University of Wollongong Discovery Days.
- The Faculty is a member of the ABS Methodological Advisory Committee
- One of the Faculty's research initiatives has developed leading technological solutions to support privacy for medical records in conjunction with the Illawarra Division of General Practice.
- Faculty was asked by the Institution of Engineers (Australia) to undertake an investigation of a possible shortfall in the supply of new graduates to the power industry and to write a guidebook to two recent Australian power quality standards by Standards Australia.
- Faculty was also asked to developed a method for determining the harmonic planning levels for a distribution system as required by recent changes to the National Electricity Code. It was also asked by the Electrical Supply Association of Australia to develop a template Power Quality guideline which can be used by Australian utilities with scope for local variation.
- Workshop for High School teachers who teach Industrial Arts for the HSC to be held during the course of 2003 to orient them to Telecommunications in relation to the strand offered in Industrial Arts.
- The Faculty continues to run its Enrichment program attracting significant interest from schools within its targeted area.
- Through the e-Health research centre initiative, the Faculty strengthened its ties with the local health care providers and continues to foster its relationships with the Illawarra Health Service and the Illawarra Division of General Practice. This has now expanded into links with both Federal and State Health portfolios.
- The Faculty, through IMMacs, continues to make a significant contribution to the local business community by managing the University's membership of the ac3 High Performance Computing Consortium. In addition, the Faculty continues to host prestigious international conferences, for example, the International Conference on Statistics, Combinatorics and Related Interdisciplinary Mathematics and in 2003 will be hosting the eighth Australian Conference on Information Security and Privacy (ACISP)
- In conjunction with INTI College in Sarawak, the Faculty is undertaking an e-Health research project under the auspices of Malaysia's multi-media super corridor (MSC) initiative.
- Also, TITR continues to be very active internationally with joint telecommunications research being undertaken with HUST and ZZILI in China.

## **4.2 Strategic Development Fund**

A budget line has been included in the University Budget for a pool of money to support strategic development within the University. Some of these monies may be available to faculties for new initiatives and improvement to problem areas which are in line with University objectives\*. Faculties are invited to apply for funding, based on the outcomes of Section 3 of this Report (ie identification of objectives and action plans for 2004, including strategies for reducing deficiencies).

\* As identified in the University Strategic Plan, Learning and Teaching Strategic Plan, Research Management Plan, and Internationalisation Plan.

### **Faculty: Informatics**

1. **Faculty Research Project Officer** (fully costed business plan attached)
2. **Dubai QA Initiative** (business plan to follow)
3. **Scholarship Program for European Exchange** (business plan to follow)
4. **Student Pre-Testing Program** (business plan to follow)

### 4.3 Student Profile: Actual and Projected

Table to be completed in conjunction with discussions with John Patterson and David MacPherson, to ensure projection are in line with University directions.

#### Student Profile as a % of Total Faculty Load

	Actual				Projected		
	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)
Domestic	67	59	51	53	54	53	52
International	33	41	49	47	46*	47*	48*
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Domestic:</b>							
Undergraduate	93	92	90	92	91	90	90
Research	5	5	7	6	7	8	8
Coursework HECS	1	1	1	1	1	1	1
Coursework Full-Fee	0.8	2	2	1	1	1	1
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>International On-shore</b>							
Undergraduate	59	40	48	56	56	57	58
Research	5	6	3	3	4	4	4
Coursework	37	49	49	40	39	38	37
NA			3	1	1	1	1
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>International Off-shore</b>							
Undergraduate		95	85	85	84	84	84
Research		0	0	0	1	1	1
Coursework		5	15	15	15	15	15
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

(\* Percentage increase in international numbers is predicted only for off-shore international students. Faculty intends to maintain the current on-shore split of domestic to international constant at 64:36%)

#### Student Profile in Terms of Faculty EFTSU

	Actual				Projected		
	2000	2001	2002	2003	2004	2005	2006
Domestic	1061	1187	1293	1399.4	1375	1375	1375
International	519	818	1262	1228.9	1175	1225	1275
<b>TOTAL</b>	<b>1580</b>	<b>2005</b>	<b>2555</b>	<b>2628.3</b>	<b>2550</b>	<b>2600</b>	<b>2650</b>
<b>Domestic</b>							
Undergraduate	989	1088	1165.4	1283.6	1251.3	1237.5	1237.5
Research	51	58	89	84.8	96.3	110	110
Coursework HECS	12	12	10.9	8.8	13.7	13.8	13.8
Coursework Full-Fee	8.6	29	27.8	22	13.7	13.7	13.7
<b>TOTAL</b>	<b>1061</b>	<b>1187</b>	<b>1293.1</b>	<b>1399.4</b>	<b>1375</b>	<b>1375</b>	<b>1375</b>
<b>International On-shore</b>							
Undergraduate		237	386.5	438.4	434	441.75	449.5
Research		33	28.4	25.5	31	31	31
Coursework		330	413.6	317.2	302.25	294.5	286.75
NA			14.9	8.8	7.75	7.75	7.75
<b>TOTAL</b>		<b>600</b>	<b>843.4</b>	<b>789.9</b>	<b>775</b>	<b>775</b>	<b>775</b>
<b>International Off-shore</b>							
Undergraduate		207	354.4	372.8	336	378	420
Research		0	0	1.5	4	4.5	5
Coursework		11	64.3	64.7	60	67.5	75
<b>TOTAL</b>		<b>218</b>	<b>418.7</b>	<b>439</b>	<b>440</b>	<b>460</b>	<b>500</b>

- *Do your projections need to be changed, or do you need to develop (marketing) strategies for reducing / maintaining / increasing components of the student profile?*

Projections are based on consolidating the Faculty after a number of years of exponential growth. However, marketing strategies will be needed to maintain our projections.

Particular market strategies will be needed to improve the quality of domestic undergraduate intake (increasing the median UAI).

Strategies will also need to be developed to diversify our intake, that is, to spread both our domestic and international students more evenly across the three schools.

In addition, we will be investigating strategies to diversify the ethnicity of our international students.

- *If you change your projections, what are the implications for resourcing?*

The Faculty already has a resourcing problem created by the rapid growth of SITACS over the last three years. While there has been a 100% increase in the school's academic staff since 1999, the staff to student ratio is still 1:23.

Whilst we have identified the need to maintain numbers, with an objective to increase numbers in two schools and decrease them in SITACS, this will take time. Also, an increase in numbers in SECTE would put pressure on the already high staff to student ration of 1:25 (without weights for Engineering being applied).

The Faculty has a space crisis. While extra space has been provided over the last two years, the Faculty, once again, has filled this and now urgently requires a room to convert to a lab for its postgraduate coursework students. This was originally accommodated in the plan for building 39 (completed in March this year). However, by the time the Faculty acquired the space and the requisite modifications were completed, it was more urgently needed for its postgraduate research students.

The other resource requirement the Faculty desperately needs is more IT support staff. I have attached a document prepared by Mr Les Ohlbach outlining the immediate staffing requirements in this area.

- *Have you identified specific objectives relating to your projected student profile? (complete the table provided below)*

*NB Please rank each of your objectives (this can be within each section, or overall, as appropriate for your faculty)*

<b><i>Objective/s*</i></b>	<b><i>Strategy/ies</i></b>	<b><i>How do you intend to measure progress</i></b>	<b><i>Timeline for implementation</i></b>	<b><i>Responsibility for implementation</i></b>	<b><i>Constraints / "Roadblocks"</i></b>
Increase undergraduate international	Greater marketing emphasis on	Increase ratio of international undergraduate to	Ongoing	Faculty International Office.	International market conditions.

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
student numbers.	undergraduate recruitment via increase advanced standing/articulation arrangements.	postgraduate students.			Australian Visa regulations.
Increase student numbers in off-shore programs.	To investigate new markets.	Increased number of students.	2 years	Faculty International Office.	
Attract international students into new Maths Masters degree.	Targetted marketing in identified locations.	Number of students enrolled into Degree.	2 years	SMAS and Faculty International Office.	
Increase 1+1 and 2+2 agreements particularly for SECTE.	Investigate strategic alliances with select high calibre Universities throughout SE Asia region.	Number of new alliances formed.	2 years	SECTE and Faculty International Office.	
Increase postgraduate research student numbers.	Raise profile of Faculty and advertise research programs.	Increased numbers.	Ongoing	Faculty Research Committee.	Identifying suitable candidates.

#### 4.4 Staffing Considerations: EEO; OH&S; Staff Development (excluding academic training)

*NB Please rank each of your objectives (this can be within each section, or overall, as appropriate for your faculty)*

<b>Objective/s*</b>	<b>Strategy/ies</b>	<b>How do you intend to measure progress</b>	<b>Timeline for implementation</b>	<b>Responsibility for implementation</b>	<b>Constraints / "Roadblocks"</b>
Create and support mentoring for staff, particularly at Lecturer A&B level.	Setup mentoring mechanism.	Career development interviews.	Ongoing.	Dean and Heads.	Recruiting senior staff into mentoring roles.
Attract and maintain research active staff.	Headhunting.	Qualifications of new staff.	Ongoing	Dean and Heads.	Availability of suitable candidates.
Provide leadership opportunities and training to appropriate staff.	Encourage staff to participate in appropriate training programs.	Number of staff attending training.	Ongoing	Dean and Heads.	Staff willingness to undertake appropriate training.
Raise awareness of OH&S policies and practices.	Development of communications mechanisms.	Existence of mechanisms.	Ongoing	Faculty WAC	Staff willingness to undertake appropriate training.

#### 4.5 Resource Planning

Based on the objectives identified throughout this report (ie action plans for 2004 and beyond), what are the implications (if any) for:

- *staffing (including numbers, position status and levels, staff development, staff workload models, etc)*

The Faculty requires five additional academic positions which would bring the student to staff ratio across the Faculty down to 25:1 (this excludes off-shore numbers as they are taught off-load).

The Faculty also requires 3.5 IT support positions.

- *Library requirements*

Ongoing discussions with Library through the medium of the Faculty Librarian and the Faculty's Library Committee, forecasting requirements in an appropriate timeframe.

- *IT requirements*

As we are looking at consolidating student numbers, the Faculty's IT requirements will be to the currency of existing systems and hardware which requires a three-year rolling plan that ensures all IT has an age of less than three years.

To maintain requirements, more staff will be needed. Also the Faculty requires a 24 x 7 IT service to support its local and off-shore students.

- *CEDIR (eg support required)*

As the Faculty expands its off-shore student numbers, there will be a greater reliance on CEDIR to provide resources to support flexible delivery modes.

- *Administrative units*

Well co-ordinated enrolment and administrative services to ensure off-shore students receive the same quality of service as on-shore students.

To achieve our objectives, the Faculty requires greater assistance from UniAdvice, for instance with targeted marketing campaigns which rely on relevant, specific and timely data.

- *other capital and equipment*

The Faculty is in urgent need of more space to accommodate a lab for current coursework Masters students. In addition, the new staffing requirements identified above needs a concomitant increase in staff accommodation which is not available under the current allocation.