

Faculty Report

2008

Faculty of Informatics

[July 2008]

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REFERENCES

1. When completing this Report, refer to the following documents included in the accompanying Planning and Review Information Package:
 - Planning Environment (Appendix A)
 - Performance Monitoring Framework – Faculty Targets 2008-09 (Appendix B)
 - Essential Guide to Faculty Planning (including guide to risk management)
 - Data Package
 - Any additional faculty-specific data/ information provided to you
2. This Report will provide essential information for:
 - budget discussions;
 - institutional planning reviews in core areas of activity; and
 - the 2008 University Annual Report to Parliament.

Part 1 Faculty Planning Context

[This section of the Plan is a key reference for budget discussions]

1.1 Faculty Profile

Characteristics, strengths and challenges (with reference to the UOW Planning Context - Appendix A) in, for example: Research – Teaching Programs – Student – Staff.

The Faculty of Informatics incorporates the disciplines of engineering, computing, information technology and mathematical and statistical methodologies within four schools:

- Computer Science & Software Engineering;
- Electrical, Computer & Telecommunications Engineering;
- Information Systems & Technology; and
- Mathematics & Applied Statistics.

The four schools enjoy a synergistic research and teaching relationship and our academics include world leaders in the fields of wireless technology, computer and network security, robotics and haptics, power quality and reliability, software design, statistics, cryptography, applied and pure mathematics, and visual information processing. The Faculty has achieved significant R&D commercialisation success in terms of start-up companies and other ventures arising from R&D effort.

The Faculty is research intensive in nature and our academic research staff are internationally recognised as leaders in their respective fields. The Faculty is one of the largest sites of ICT research in the southern hemisphere and has strong industrial links with major international companies and collaborative research and development projects with partners including Andrew Corporation, Accenture, Apple, BHP Billiton, BlueScope Steel, Boeing, Defence Science Directorate, DHL (Asia Pacific) Docuspace, Energetech Australia, Freescale Semiconductors, Hawker de Havilland, Microsoft, Motorola, Objective Corporation and amazon.com, Sun Microsystems, Telstra, Tibra and Tracient.

The Faculty also houses numerous research centres, including the Telecommunications and Information Technology Research (TITR) Institute, which has been declared a State Centre of Expertise in Telecommunications by the NSW Government. The Faculty annually hosts the Mathematics in Industry Study Group (MISG), with participating industry partners such as Bluescope Steel Research, Integral Energy, DSTO, Trading technology Australia and Transpower (NZ). The Centre for Statistical and Survey Methodology (CSSM) is also designated research strength of the University. It carries out fundamental and industry focussed research funded by several ARC and NHMRC grants, contract research, consulting and professional education in advanced statistical methods. It has major partnerships with the Australian Bureau of Statistics and NZ Ministry of Health and research contracts with a range of other government agencies and businesses. It has 20 research students, making it the largest group of statistics research students in Australia. It has strong links with statistical agencies and universities in the UK, USA, Italy and New Zealand. Since 2005, the Faculty has been involved with the Homeland Security Research Centre, which is connected with the ARC Research Network for a Secure Australia (RNSA). Representatives from the Faculty have attended and participated in a number of functions including PhD workshops, conferences, workshops and presentations.

Our undergraduate courses are industry focused and fully accredited by the relevant professional bodies. Our existing degrees are constantly reviewed and new courses are introduced in line with marketplace needs and the rapid advances in the sector, especially in relation to the Internet and the globalisation of telecommunications, ensuring our students are always at the forefront of this constantly changing sector. The courses offered by the School of Electrical, Computer and Telecommunications were recently re-accredited by Engineers Australia. In 2007, all the degrees in the School of Mathematics and Applied Statistics were accredited by the Australian Mathematics Society.

The Faculty has been successful in securing various grants both internally and externally, with staff successful in receiving OCTAL and other teaching awards, over 50 per cent of ESDF grants for 2008, Carrick citations, and a large Carrick grant in 2008.

The Faculty supports strong research links with over 30 leading international institutions, including Huazhong University of Science and Technology (China), Tsinghua University, Shanghai Jiaotong University, Technical University of Munich, Royal Holloway (University of London), University of East London, Manchester University, University of Florida, University Paris 13, University of Talca (Chile,) University of Columbia, University of Murcia (Spain), Institute for Infocom Research (Singapore) and Tokyo Institute of Technology. The Faculty also has off-shore collaborations with key institutions in the region including the Singapore Institute of Management (SIM); INTI College, Kuching, East Malaysia; Hong Kong University of Science and Technology (HKUST); and Zhengzhou University in Henan Province, China. Active Faculty Alumni networks exist in Singapore, Hong Kong, Malaysia and Dubai.

1.2 Strategic Priorities

Identify priorities for 2009-2011 under the Core Areas of:

- *Student Profile/Internationalisation*
- *Learning and Teaching/Internationalisation*
- *Research/Internationalisation*
- *Community Engagement*

Essential references:

- *UOW Planning Context (Appendix A)*
- *UOW Performance Monitoring Framework and Faculty Targets (Appendix B)*

The Faculty of Informatics has developed a long range (2005-2015) vision and set of aspirations which underpins its shorter term priorities. In this context the following represents the top 4 priorities for the Faculty of Informatics within the next three years:

Students:

- **Priority:** Increase student numbers (both domestic and International) whilst continuing to improve the student experience across all degree offerings.
- **Leading initiative:** Develop and implement an effective marketing plan for domestic and international students. Internationalise the Faculty's web page by providing information in multiple languages.

Teaching and Learning:

- **Priority:** Review and modify all of the core degree offerings within the Faculty to ensure that they are well differentiated and highly competitive within the sector. This priority applies to all Schools within the Faculty but is particularly applicable to the new School of Information Systems and Technology.
- **Leading initiative:** The Faculty will take a leadership role at the national level with a focus on managing educational change in the ICT discipline at the tertiary level and mathematics and statistics at the secondary and tertiary level.

Research:

- **Priority:** Continue to increase the Faculty's research capacity and strength through staff development and recruitment to maximise its national standing within the ERA environment
- **Leading initiative:** Effective succession planning, targeted recruitment and career development.

Community engagement:

- **Priority:** Broaden the level of industry engagement both in the local and national environment with a view to significantly increasing the base of commercially funded research projects as well as providing industry support and involvement within the

Faculty's teaching and learning programs.

Leading initiative: Establish a coordinated approach that harnesses the research and teaching leadership within the Faculty in concert with the efforts of the Research and Innovation Division.

1.3 Key Risks

Identify key risk areas for the faculty, with reference to UOW's five-tier risk ranking system for likelihood and consequences (see the "Essential Guide to Faculty Planning" for guidance).

Description of risk*	Ranking 1-5**	How will the risk be managed? (Brief statement only)
The 'softness' in domestic undergraduate enrolment numbers and difficulty in attracting high quality domestic undergraduate students – drop in perception of UOW quality.	5	Domestic marketing campaign targeted at: increasing UAC first preferences, promoting Early Entry and Deans Scholars programs. Increased visits to High Schools by academics. Utilise the Points to UOW bonus UAI scheme to attract students who have completed appropriate subjects. Introduce more scholarships and links to quality companies with a particular emphasis on internships and scholarships
Low skill levels of undergraduate and postgraduate international students; employability of international Masters graduates.	5	Improve advice to ensure students are placed in appropriate degrees. ESDF project run by Fazel Naghdy on employability skills. Reassess all Masters students in the Faculty with the idea of introducing employability skills Consider a Graduate Certificate to filter postgraduate student into Masters degrees
The International market has become very competitive and is being influenced by the value of the A\$ and maturing overseas tertiary institutions. Consequently, international student recruitment numbers are becoming more volatile.	5	Development of effective marketing and recruitment strategies and additional collaborative agreements with overseas institutions. Diversification of student source countries with greater emphasis on attracting quality undergraduate students.
A number of staff are nearing retirement age, affecting research continuity.	4	Encourage academic retirement age at 60, with staff to return to the University part-time in targeted projects and as mentors for newly appointed staff.

* *Examples:* (i) Adequate business continuity systems not in place for future needs; (ii) Inconsistent implementation of assessment policies and procedures affecting consistency of standards; (iii) Inadequate QA controls for offshore teaching affecting consistency of standards of entry, delivery and/or assessment; (iv) Inadequate training of academic staff as Primary Investigation Officers resulting in poor management of student misconduct procedures

**1-very low, 2-low, 3-tolerable, 4-high, 5-very high

Part 2 Planning and Review – Core Activities

2.1 Student Profile

UOW Strategic Goals and Objectives 2008-10

Goal 3 – Dynamic engagement with our communities

- Enhanced educational aspirations and higher education participation in our regions

Goal 5 – A university of international outlook and environment

- A university of choice for international students

Goal 7 – Business capacity to advance the achievement of our Vision

- Strategic deployment of resources and information (including enhanced marketing and forecasting capacity in student recruitment)

2.1.1 Review

2007 in Review

Note: Summary of key outcomes, including key achievements, milestones, awards, challenges and constraints for the reporting areas identified in 2.1.2 below.

HIGHLIGHTS

- Dean's Scholars program developed across all courses offered by the Faculty (except BMath(Adv) which retains its current identity), approved and included in 2008 UAC Guide.
- UniAdvice adoption of Faculty's marketing strategy and rolling out Early Entry program across the campus for 2009 using Faculty's format and process as blueprint.
- Enrichment Program run under new format attracting 123 students from local High Schools.
- SECTE High School Challenge Competition was held 20 November, 2007 with eight local schools attending – Holy Spirit College, Cedars Christian College, Keira Technology High, Edmund Rice College, Smiths Hill High, St Josephs Regional High, Woonona High, and TIGS; \$7,500 sponsorship was secured.
- Several new scholarships established in SECTE and across the Faculty (eg. Telstra Scholarships).

Faculty Strategies addressing UOW Objectives

Recruitment – domestic

1. Develop a strategic multi-faceted Faculty marketing plan to increase market share of HSC first preferences.
2. Attract undergraduate and postgraduate students by establishing school-based Marketing Committees to complement the work of the Faculty Marketing Committee.
3. Other strategies include:
 - Developing a Dean's Scholars Program
 - Restructure the BIST course
 - Initiating competition for Yrs.9 and 10 High School students focused on Electrical Engineering
 - Establishing new high-level and work-integrated scholarships to attract high-calibre students
 - Enhance the effectiveness and quality of School websites
 - Review and broaden u/g and p/g offerings in new School (SISAT)
 - Exploring delivery of p/g coursework subjects as short courses
 - Maths Teachers' Day organised by the School of Mathematics and Applied Statistics

Progress:

- Faculty marketing plan developed and strategies implemented, including revamped careers market flyers incorporating Dean's Scholars Program flyer, poster of Informatics' graduate business cards and advertising in Good Universities Guide
- Marketing and High School Liaison Committee (SM&HSLC) formed in SECTE
- Count-down advertisements for Early Entry placed in local, regional and rural newspapers
- School specific brochures developed, targeting HSC students
- Enrichment Program now complete. Meetings being held end this year to evaluate the revised program adopted this year and to commence planning for next year's program.
- SISAT completed an extensive review of u/g and p/g offerings
- New MIS & MIS(Adv), BIS approved by Senate
- SECTE SM&HSLC prepared promotion flyers for distribution during Discovery Days in 2008 with three new demonstrations by final-year students planned
- SECTE High School Challenge Competition held with eight local schools attending – Holy Spirit College, Cedars Christian College, Keira Technology High, Edmund Rice College, Smiths Hill High, St Josephs Regional High, Woonona High, and TIGS; \$7,500 sponsorship was secured.
- Several new scholarships for SECTE students:
 - Walter Mining work integrated learning and Delta Electricity work integrated learning scholarships established
 - 25 Work-Integrated Scholarships offered by the Defence Materiel Organisations (DMO) valued at \$25,000/year for the last two years of study plus 13 weeks' paid industry training/work experience;
 - 35 Work-Integrated Scholarships offered by the Australian Power Institute valued at \$8,000/year for four-years of study with specialisation in Power Engineering plus 13 weeks' paid industry training/work experience;
 - 18 Work-Integrated Scholarships offered in the second semester of 2007 and another 20 in 2008 by the Australian Power Academy valued at \$13,000/year for the last two years of study with specialisation in Power Engineering plus 13 weeks' paid industry training/work experience. UOW is one of only five universities that are selected as partners to the Power Academy (the others are University of Newcastle, University of Adelaide, RMIT and Curtin University);
 - One Work-Integrated Scholarship offered in 2007–2008 by Partech Systems to SECTE students valued at \$10,000/year for the last two years of study plus 13 weeks' paid industry training/work experience. Partech indicated a willingness to increase the number of scholarship to two in 2008
- Detailed report on the performance of first year SECTE students during Autumn session identified subjects where students perform most poorly with analysis of mode of entry (in particular HSC mathematics results) identified as having impact on performance
- PASS program established for ECTE172 in Spring session following feedback from students and the results of the PASS program for SECTE students enrolled in MATH141
- Second first-year SECTE student forum held identifying two subjects of concern were identified; as a result, coordinators of relevant Spring session first year subjects contacted and asked to provide feedback on student performance during the first half of Autumn session.
- Second year SECTE student forum held highlighting areas of concern relating to the structure of ECTE171 and 172 and indicating an overlap of material in ECTE202 and ECTE203 identified as a positive allowing fundamental materials to be re-enforced; evaluating suggestion of using series of smaller tests in first year subjects rather than one final exam, and also suggestion complementary subjects being run consecutively rather than a session apart
- SECTE student-staff forum for third year students held with students being briefed on final year thesis project and Industrial Experience to be undertaken; consultation and advice for fourth year students ongoing.
- Work is in progress to provide an eCollaboration space for various committees and task forces of SECTE
- SCSSE has participated in 3 School visits
- Maths Teachers' Day held again with a good number of enthusiastic teachers attending. Planning already underway for July 2008.

Recruitment – international

1. Produce marketing materials for Planet India road show and promoting Faculty in targeted Indian cities with greatest potential for IT students
2. Coordinate follow-up conversion trips to Subcontinent to establish better relations with agents and provide pre-arrival information to potential students
3. Attend Beijing CIEET road show and conduct agent training
4. Translate targeted marketing materials into Mandarin and further development of multilingual web pages
5. Consolidate high-level offshore partnerships in China
6. Progress relations with Binus International in Jakarta, Indonesia, to see flow onshore of articulating students into BCompSc
7. Explore opportunities with identified institutes and high schools in China to create pathways for undergraduate programs
8. Develop strategies for expansion into Vietnam and explore opportunities with identified higher education institutes and high schools in Vietnam to attract scholarship students and establish articulations for onshore flow of undergraduate students
9. Diversify into other International markets, including Middle East

Progress:

- Brochures and PowerPoint presentations developed for India and China road shows and circulated to key agents and off-shore partners.
- Brochure developed for Master of Financial Mathematics, also translated into Mandarin
- Multilingual web pages completed and available online (Faculty of Informatics first UOW faculty to use multilingual web pages)
- Updated International Unit homepage. International Prospectus rewritten to reflect new degrees and the Faculty's four schools (text then used for domestic prospectus as well)
- 20 additional students projected for 2008 from Zhengzhou and Tianjin Universities.
- 3 new students from Zhengzhou and 12 from Tianjin enrolled in Spring Session 2007. 21 students from Zhengzhou enrolled for Spring 2008
- 165 new Chinese students enrolled for Spring Session 2007 but only 138 in Spring 2008; significant drop in numbers of Chinese students in the MCompSc and MICT
- Dean of Faculty and Prof. Xi visited National Minorities University in Kunming and HUST in Wuhan in June 2007; English courses preparing for IELTS recognised; number of conditional offers made to students and arrangements for post-graduate articulation for all IT degrees at HUST completed.
- BiNus International Program Development Manager visited UOW in July 2007. Articulation arrangement for Bachelor of Computer Science completed, awaiting approval from Indonesian Ministry of Education
- Marketing materials for Informatics degrees (Chinese brochures and PowerPoint presentations) given to various staff (Li Wanqing, Tim Marchant, Song-Ping Zhu inter alia) to promote UOW during study leave or conferences at various universities in China; SECTE staff teaching in Zhengzhou provided with up-to-date Faculty and UOW PowerPoint presentations and Chinese brochures

Access by equity groups

- In non-traditional areas, increase female students by:
 - reviewing course structures to make them more inviting to females
 - developing marketing materials targeted at females
- Improve access, participation, retention and completion rates among student equity groups

Progress:

- SCS&SE Enrichment program workshops restructured to be 'female friendly'
- New SISAT degrees focusing on business problems and solutions, rather than just technology solutions, making them more attractive to females although progress not expected until after enrolment in 2009.
- Coordinator of Women in Engineering appointed, action plan developed (including an email group for females in the faculty and a social forum) and new advertising material produced; Women in Engineering Networking/Information Evening organised for High School Maths and Science Masters with past graduated students to provide presentations and a brief address

- 45% of new students in Bachelor of Mathematics courses are female.
- Women in Engineering Network/Information evening organised
- SCSSE participated in three school visits, two of which were co-ed, with presentation being well received.

Additional Faculty Objectives

Attract and retain undergraduate and postgraduate students, both domestically and internationally

Increase quality of postgraduate supervision in SCSSE

Progress:

- IACT940 now compulsory for Master of Computer Science and for PhD students who cannot demonstrate high quality research methods skills to complete their PhD

2008 Update

Note: *This area is provided for faculties to list key outcomes from January-June 2008 to inform the development of faculty strategies and objectives below.*

Recruitment – domestic

- ♦ Deans Scholar's program introduced and attracting nine enrolments: 8 males and 1 female; 5 enrolling in SCSSE, 3 in SECTE and 1 in SMAS. SISAT have a Dean's Scholar potentially enrolling next year
- ♦ Careers market flyers revamped to make them more eye-catching and interesting to potential undergraduate students; new promotional products sourced and secured; poster of Informatics' graduate business cards developed, and advertising again in Good Universities Guide
- ♦ HSC first preference share remained static at close of change of preferences, however the Faculty's share of 85+ UAI increased by 19%
- ♦ Enrichment Program revised and delivered again this year with registrations for the first deliveries already at capacity
- ♦ ESDF and Teaching & Learning funding has allowed a dedicated SISAT academic to lead the School's course review. As a result, a three-year plan to update subject content as related to new degree structure has commenced and the School is currently exploring the option of introducing Associate Degrees. The current phase of the three-year review is being conducted on a thematic (hub) basis: programming hub, networking hub, solutions development hub etc to ensure vertical integration year to year. A review of content within each year will commence towards the end of first Semester to ensure horizontal integration
- ♦ Discovery Days sessions with over 200 year 12 students attending SECTE sessions; School retaining names and addresses for further follow-up during the course of the year
- ♦ SECTE Science and Engineering Challenge held end 2007 with 224 students attending; 2008 Challenge held over two days on 25 and 26 June and involving the Faculties of Engineering and Science, with 476 students attending from 13 high schools
- ♦ Discussions held between SECTE and CSC resulting in a new four-year work-integrated learning scholarship being provided
- ♦ SECTE held a forum for first-year and second-year students in March and a forum for Dean's Scholars students; forum for third and final year students to be held in May
- ♦ SECTE "at risk" students identified through MATH141 tests contacted in March and continue to be monitored regularly
- ♦ SCSSE delivered a presentation to introduce SCSSE Research Groups and Leaders to SCSSE Dean's Scholars students
- ♦ SISAT undergraduate and postgraduate review activities reported further down
- ♦ Maths Teachers' Day held in July 2008

Recruitment – international

- ♦ Marketing material for Planet India road show completed, conversion to Subcontinent attended by International Coordinator in April 2008
- ♦ Brochure developed for Master of Financial Mathematics, also translated into Mandarin
- ♦ 24 new Indian students enrolled February 2008
- ♦ Saudi students increased from five in 2007 to 29 in Autumn 2008
- ♦ Malaysian students increased from 4 in 2007 to 13 in Autumn 2008
- ♦ 235 students enrolled for Autumn 2008, of which 196 are Chinese nationals
- ♦ Information on Faculty courses and research strengths given to six Planet student agency reps from India and four from the Middle East
- ♦ New two-year study options brochure developed for India and China
- ♦ Chinese brochures and PowerPoint presentations updated to reflect degree changes
- ♦ MICT and MITM-specific marketing materials to be developed for PG articulation arrangement with Assumption University (Thailand)
- ♦ Formal invitation received from Yantai Yew Wah International School for International Officer to deliver presentation on next trip to Northern China
- ♦ Currently 12 students are studying Engineering onshore from Zhengzhou University, with another 21 students from Zhengzhou enrolled for Spring session 2008
- ♦ International Officer has visited Binus International in Jakarta twice since September 2007; the twinning arrangement has been finalised and now awaiting approval from the Indonesian Ministry of Education. A few enquiries have been received from potential students (and Binus staff) but UOW fees remain the highest of all Binus' partners for BCompSc
- ♦ Strategy being developed for entry into Vietnam market, particularly to city/state of Danang which is being developed as an ICT region in central Vietnam. Faculty hosted representatives from Hoi An city as well as the Danang City Scholarship Program in July 2008. developing close relations with IDP representative from Ho Chi Min City who visited UOW twice within six months
- ♦ SIM has included the Multimedia and Gaming major from Oct 2007 in Singapore and SIM/UOW will introduce the Graduate Diploma in Digital Systems Security in October 2008
- ♦ The departure of the UNSW site in Singapore has had a positive impact on enrolments for SIM which is now one of only four universities in Singapore that receive government tuition fee subsidies
- ♦ SIM is expecting an increase from 500 to 1000 students in UOW Computer Science degrees for 2008

Access by Equity Groups

- ♦ Strategy of new SISAT degrees focusing on business problems and solutions, rather than just technology solutions, thus making them more attractive to females supported by marketing feedback. Activities involving local female IT professionals to be investigated and implemented within next two quarters to support above strategy.
- ♦ SECTE's Women in Engineering Network Information Evening held end 2007 successful; currently liaising with RTA re convening a Summer Camp for Women in Engineering
- ♦ 50% of new students in Bachelor of Mathematics courses are female.
- ♦ The Informatics Faculty Officer attended rural careers markets in Bathurst, Forbes and Dubbo (May 2008), and Albury, Wagga Wagga, Griffith (June 2008).

2.1.2 Faculty Strategies and Targets under UOW Objectives

Include key strategies for reducing/ maintaining/ increasing various cohorts of students, with reference to identified student profiles (Tables 1 & 2 below), DEST clusters and international student targets.

Reporting Areas (See above for UOW Objectives)	Targeted Outcomes (For background, refer to App B)	Faculty Strategies (Revise from previous plan as necessary)
Recruitment - domestic	<p><i>Mandatory faculty targets:</i></p> <p>Maintain share of school leaver first preferences in line with UOW strategies</p> <p>Achievement of domestic student recruitment targets (to be set in consultation with DVCO and DVCA&I)</p> <p><i>Faculty-determined targets:</i></p> <ol style="list-style-type: none"> 1. Increase HSC first preferences by 5% 2. High Schools' competition successfully implemented 3. Establishment of at least five work-integrated scholarships 4. Review of SISAT offerings completed 5. Subject based p/g short courses developed 	<ul style="list-style-type: none"> ▪ Develop a strategic multi-faceted Faculty marketing plan to increase market share of HSC first preferences. ▪ Attract undergraduate and postgraduate students by establishing school-based Marketing Committees to complement the work of the Faculty Marketing Committee. ▪ Other strategies include: <ol style="list-style-type: none"> 1. Restructure the BIST course 2. Initiating competition for Yrs.9 and 10 High School students focused on Electrical Engineering 3. Establishing new high-level and work-integrated scholarships to attract high-calibre students 4. Enhance the effectiveness and quality of School websites 5. Review and broaden u/g and p/g offerings in SISAT 6. Exploring delivery of p/g coursework subjects as short courses
Recruitment - international	<p><i>Mandatory faculty targets:</i></p> <p>Achievement of international onshore student recruitment targets (to be set in consultation with DVCO and DVCA&I)</p> <p><i>Faculty-determined targets:</i></p> <ol style="list-style-type: none"> 1. Produce two-year study options multilingual marketing materials for Indian and China Higher Education Road Shows, with greater recruitment emphasis on conversion. 2. Diversify student source countries, particularly toward Malaysia for govt. sponsored undergraduate and govt. scholarship HDR students 3. Consolidate high level offshore twinning agreements in Thailand (Assumption) and Indonesia (Binus International) 4. Develop strategies for expansion into Middle East (Iran, Egypt and Jordan) and Southeast Asia (Vietnam, Thailand) 	<ol style="list-style-type: none"> 1. Increase number of quality Indian and Chinese students from 2008 2. Increase number of Malaysian govt. sponsored students by 6% 3. Continue to convert transnational offshore students to feed onshore 4. Strategies being developed
Access by equity groups	<p><i>Faculty-determined targets:</i></p>	<ul style="list-style-type: none"> ▪ In non-traditional areas, increase female students by:

	<ul style="list-style-type: none"> ▪ Increased female enrolment over 2008 figures 	<ul style="list-style-type: none"> • reviewing course structures to make them more inviting to females • developing marketing materials targeted at females ▪ Improve access, participation, retention and completion rates among student equity groups
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2.1.3 Additional Faculty Objectives *(where appropriate)*

Faculty Objective	Targeted Outcomes	Faculty Strategies <i>(Revise from previous plan as necessary)</i>
	<i>Faculty-determined targets:</i>	

Table 1 Student Profile as a % of Total Faculty Load

FACULTY	2003	2004	2005	2006	2007	2008*	2009*	2010*	2011*	2012*
Domestic	49%	48%	47%	48%	48%	43%	42%	41%	41%	40%
International	51%	52%	53%	52%	52%	57%	58%	59%	59%	60%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Domestic:										
Undergraduate	90%	89%	89%	89%	88%	89%	90%	90%	90%	90%
Research	7%	8%	9%	9%	10%	9%	9%	8%	8%	8%
PG Coursework [HECS-Help]	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%
PG Coursework Full-Fee	2%	2%	2%	2%	1%	1%	1%	0%	0%	0%
Non-Award	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
International On-shore										
Undergraduate	52%	46%	43%	40%	32%	30%	30%	31%	32%	32%
Research	4%	4%	5%	7%	10%	11%	11%	11%	12%	12%
PG Coursework	44%	48%	50%	51%	57%	59%	58%	57%	56%	55%
Non-Award	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
International Off-shore										
Undergraduate	82%	90%	97%	100%	99%	99%	99%	99%	99%	99%
Research	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PG Coursework	18%	10%	3%	0%	1%	1%	1%	1%	1%	1%
Non-Award	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 2 Student Profile in Terms of Faculty EFTSL

FACULTY	2003	2004	2005	2006	2007	2008*	2009*	2010*	2011*	2012*
Domestic	1,248	1,179	1,075	1,009	1,041	1,018	1,009	999	975	963
International	1315	1299	1211	1095	1115	1,346	1,387	1,413	1,430	1,442
TOTAL	2,563	2,478	2,286	2,103	2,156	2,365	2,396	2,412	2,406	2,406
Domestic										
Undergraduate	1,127	1,053	956	899	920	908	904	896	876	866
Research	92	99	95	92	106	93	88	84	81	79
PG Coursework [HECS-Help]	5	3	2	1	3	6	9	10	10	11
PG Coursework Full-Fee	24	24	21	17	12	8	6	5	5	5
Non-Award					0	4	4	4	4	4
TOTAL	1,248	1,179	1,075	1,009	1,041	1,018	1,009	999	975	963
International On-shore										
Undergraduate	413	379	338	249	222	209	231	246	255	260
Research	28	31	42	42	68	74	82	89	93	93
PG Coursework	348	396	390	316	387	415	439	446	449	450
Non-Award		11	11	8	7	9	8	8	8	8
TOTAL	789	818	781	615	684	707	760	788	803	811
International Off-shore										
Undergraduate	432	434	419	480	612	632	619	616	619	623
Research	1				1	1	1	0	0	0
PG Coursework	93	47	11		4	6	7	8	8	8
Non-Award					0	0	0	0	0	0
TOTAL	526	481	430	480	617	640	627	624	627	631

2.2 Learning and Teaching

UOW Strategic Goals and Objectives 2008-10

Learning and Teaching Goal

Goal 1 – Excellence and innovation in learning and teaching

- Graduates equipped to contribute to society and the workplace
- An active, collaborative and flexible learning experience for students
- Quality programs relevant to the evolving needs of students and the community
- An international focus in learning and teaching
- High quality teaching

Related Goals

Goal 3 – Dynamic engagement with our communities

- Integration of community engagement in our academic activities

Goal 4 – Students engaged with learning and University life

- Students engaged as members of the University community (including support of students from equity groups)
- Efficient and professional management of each phase of the student experience
- A social and physical environment where all students can participate in University life
- Effective communication between students and the University

Goal 5 – A university of international outlook and achievement

- A UOW community with a diverse and rewarding global perspective and culture
- International recognition for quality, standards and outcomes

2.2.1 Review

2007 in Review

Note: Summary of key outcomes, including key achievements, milestones, awards, challenges and constraints for the reporting areas identified in 2.3.2 below.

HIGHLIGHTS

- Faculty leading one of the three national discipline projects in the ICT arena funded by the Carrick Institute; Carrick Citation to Anne Porter
- Break-up of SITACS and new School, incorporating Informatics and Commerce staff formed, located and operating successfully
- Broad review completed and successful introduction of new, and modification of existing, degrees in both the School of Information Systems and Technology (SISAT) and the School of Computer Science & Software Engineering (SCSSE)

Faculty Strategies addressing UOW Objectives

Development of graduate attributes (note this item now renamed by UOW to graduate qualities)

1. Review all SISAT current and proposed courses to satisfy graduate attributes and accreditation requirements
2. Improve learning outcomes and pass rates in subjects with high failure rates through QUALITY101
3. Integrate academic and information literacy, language and learning support into curricula

Progress:

- SISAT evaluating EQUELLA as a learning management system and continuing to develop graduate quality database
- Reviews of MATH111 and MATH142 complete providing baseline data for further study in 2008
- New FEC working party (formed to consider Graduate Qualities and how they might be mapped to subjects and degrees led by Katina Michael) established and working on finding suitable Faculty Qualities for devolving to discipline level; timeline produced and planning underway for an ESDF grant.

Quality teaching programs including course development and review

1. Review structure and effectiveness of SECTE p/g courses by:
 - internally reviewing the structure and content of the MIT
 - reviewing the effectiveness of the new Master of Engineering Studies introduced in 2006
2. Review subject delivery in each session and address abnormalities in student achievement and satisfaction by:
 - ensuring Subject Review form completed for each subject in every session
 - examining delivery of subjects with low student satisfaction rates
3. Review all SCSSE subject offerings (both u/g and p/g) with a view to rationalisation
4. Develop new syllabus for Master of Software Engineering and benchmark with top international offerings
5. Review all u/g SISAT degree structures including:
 - conducting surveys of graduate satisfaction
 - identifying strengths and weaknesses in existing courses from both IS and IT
 - removing non-viable courses
 - redesigning existing courses to provide a high quality learning outcome
6. Conduct reviews of all SMAS courses over the next five years
7. Ensure Faculty compliance with the University's new Quality Review Framework
8. Develop a Dean's Scholars Program across Faculty courses

Progress:

- Modifications to MIT Degree with core subjects altered and elective subjects changed allowing students to select certain Master of Engineering Studies subjects approved and adjustments made to Subject Database
- SISAT focus groups established to look at student satisfaction and extensive staff interviews held to select most appropriate curriculum for UG degrees
- SISAT deleted non-viable courses and redesigned existing courses to provide a high quality learning outcome
- SECTE Education Committee programmed a series of activities to address student satisfaction issues
- Restructure of the delivery of ECTE171 and 172 almost complete consisting of offering Annual instances of subjects in parallel without any change to the subjects. Six subjects put forward for Subject Evaluations for Spring Session 2007
- SECTE evaluating curricula mapping and IEAust Category Mapping. An IEAust Accreditation Review of all Courses is due to take place in May 2008 – documents currently being prepared
- SCSSE review undertaken with new subjects introduced and redundant subjects removed; the majors were revamped, one deleted and others brought in line with research strengths of the School
- Software Engineering review completed; no new degree established, rather new major created within Master of Computer Science and Master of Computer Science (Advanced) degrees
- SISAT removed redundant subjects from new degree structures
- Deans Scholars proposal approved by Senate; appeared in UAC handbook and have been advertised by both the University and the Faculty.
- Working party established to review 2nd and 3rd year pure Maths offerings resulting in Math222 and Math322 content modified and approval granted for 2009. New majors for BMathFin degree, and associated accreditation, are proposed for 2009
- Australian Mathematical Society to undertake accreditation of Maths degrees due for completion by end 2008.
- Two out of four majors deleted from BIST; development of two more majors postponed until 2008.
- Major changes to BIT, MIT, MICT & MICT(Adv) and minor changes in Diplomas and Graduate Certificates all approved which is a major achievement by SISAT and FEC; MITM on course for approval in 2008

- Bachelor of Computer Science restructured majors approved along with corresponding Masters degree
- Changes to recently announced skilled migration rules apply retrospectively to include students about to graduate; University and Faculty have quickly put in place articulation and transfer arrangements to provide effective solution for all current postgraduate students
- Five year subject review cycle determined

Student support

1. Reinstate SCSSE mentoring scheme for “at risk” first-year undergraduate students
2. Review the transition in and through first year Mathematics subjects by:
 - developing procedures to identify and help weak students as early as possible
 - developing strategies to engage students at all levels of ability
 - conducting reviews of first year subjects concentrating on assessment as well as curriculum
3. Develop repositories of SMAS subject materials accessible by web interface
4. Summertime Math project testing the use of online support teaching materials with the aim of making it available on DVD.

Progress:

- Two meetings held with “at risk” students, ie HSC forced offer students and students that failed more than one subject in Autumn session; excellent participation at both meetings
- “At risk” database constantly being updated.
- SMAS working party formed to investigate repository development

Support for quality teaching

Develop processes to encourage and assist academic staff to apply for competitive grants in the area of quality teaching and learning

Progress:

- Katina Michael awarded a CEDIR fellowship
- Several ESDF/T&L applications being developed
- Maureen Morris awarded the Octal Tutor/Demonstrator Award
- Annette Worthy awarded an Octal Faculty Award (only three Faculty Awards presented across the University)
- Dr Anne Porter awarded a Carrick Institute citation for Outstanding Contributions to Student Learning
- Daniel Saffioti awarded the Vice Chancellors award for Excellence in Community Engagement
- Prof Matthew Wand; admitted as a "Fellow" of the prestigious Institute of Mathematical Statistics

INTERNATIONAL LINKAGES AND ACTIVITIES

Offshore teaching programs

Evaluate offering proposed Dean’s Scholars Program to offshore courses

Progress:

Evaluating complete and recommendation submitted to Faculty for approval.

Additional Faculty Objectives

Seek accreditation of SMAS courses where appropriate

1. Determine appropriate financial bodies to provide accreditation for the Finance courses
2. Investigate articulation into p/g Actuarial courses offered at other Universities

Progress:

Proceeding under the direction of the Chair of the SMAS SEC

2008 Update

Note: This area is provided for faculties to list key outcomes from January-June 2008 to inform the development of faculty strategies and objectives below.

Development of graduate qualities

- Holly Tootell taken over leadership of the Graduate Qualities (GQ) group while Katina Michael on maternity leave and awarded a Teaching & Learning Fellowship to investigate Equella further to assist with mapping Graduate Qualities through the course spectrum, ie from course level through detailed subject levels, and down to individual assignment levels, mainly for SISAT courses at this stage
- Work to date presented at the end-of-year Faculty Planning Day which also included members of the Faculty Advisory Committee
- University requirements of Faculties changed but GQ group adjusted accordingly so that all Schools now have clear descriptions of their requisite Qualities interpretations

Quality teaching programs including course development and review

- As a result of its PG courses review, SECTE's MIT was scheduled for deletion. A new GradDip and Master in Technology Engineering is scheduled for introduction in 2009, and the MEngStud and its associated Double Degree have been revised
- SISAT three-year roll out of new subject content being mapped to Graduate Qualities and ACS accreditation requirements. This allows for both horizontal and vertical analysis of content mapping to requirement qualities and skills
- SISAT commenced ACS accreditation for all nine new degrees
- Restructure of the delivery of ECTE171 and 172 now complete and the trial annual offering is occurring this year. These are now offered as annual instances of subjects in parallel without any change to the subjects and the documentation has been delivered to Engineers Australia for Accreditation purposes
- Software Engineering review completed; no new degree established, rather new major created within Master of Computer Science and Master of Computer Science (Advanced) degrees
- Four new majors in BMathFin (Risk Management and Insurance, Quantitative Corporate Finance and Investments, Financial Services, and Mathematical Economics) proposals complete and have appropriate accreditation from professional societies (ASIC and FINSIA). Majors also provide articulation into Masters degrees in Actuarial Science
- All SMAS degrees now successfully accredited by the Australian Mathematical Society along with above-mentioned accreditation for the BMathFin
- SMAS working party's report proposed changes to key first year subjects (MATH141 and MATH142) recommending refocusing subjects towards teaching Maths relevant to Engineering students and including workshops and labs into classes approved by FEC
- New Comparative Student Outcomes Reports received identifying no outstanding problems
- Nine Dean's Scholars commenced in 2008 receiving book vouchers, increased internet quota and library privileges; welcoming lunch held with a more formal function planned for commencement of Spring session which will include research topics of interest across the Faculty; Dean's Scholars to be specifically invited to apply for vacation scholarships
- Arrangements formulated for non-UAC entry to apply by end of 2008
- BMath(Adv) students also afforded increased internet quota and library privileges and to be invited to above-mentioned Spring session formal function

Student support

- Meeting held in February 2008 with re-enrolled students with two or more Fails in Spring session (2007) and with Forced Offers students in March

- Congratulatory letters sent to SCSSE students who received two or more High Distinction grades in Spring session (2007)

Support for quality teaching

- Six out of 10 UOW ESDF grants awarded to the Faculty; two more awarded after initial allocation
- Anne Porter received a 12-month \$100,000 grant for the Developing Maths Resources project, a multi Faculty exercise looking at remedial and instructional materials

2.2.2 Faculty Strategies and Targets under UOW Objectives

Note: Strategies to ensure that staff profile and skills are adequate to implement the Learning & Teaching strategies below should be included in Section 3.1.2.

Reporting Areas <i>(See above for UOW Objectives)</i>	Targeted Outcomes <i>(For background, refer to App B)</i>	Faculty Strategies <i>(Revise from previous plan as necessary)</i>
<p>Development of graduate qualities <i>(include workplace/ experiential learning initiatives)</i></p>	<p><i>Mandatory faculty targets:</i></p> <p><u>Graduate readiness for employment</u></p> <p>Proportion of students obtaining employment above the national average for all disciplines</p> <p>Documentation of opportunities provided by faculties for students to undertake experiential learning in the community</p> <p>Active Faculty Advisory/ Visiting Committee schedule in place by Feb 2009</p> <p><u>Integration of Graduate Qualities</u></p> <p>Graduate Qualities cited in all new courses and subjects by Feb 09</p> <p>75% positive feedback to Graduate Qualities questions in Course Experience Questionnaire (CEQ) and Student Experience Questionnaire (SEQ)</p> <p><i>Faculty-determined targets:</i></p> <p>1. Course subjects for integration identified, implementation plan and review of same completed.</p>	<ul style="list-style-type: none"> • Continue work on Fazel Naghdy's ESDF project on employability skills. • Develop project subjects in degrees • Assist students with vacation employment/internships • Use Advisory Committees to identify appropriate skills for graduates • Establish Subcommittee of the FEC with representatives from all four Schools • Inform students what the Graduate Qualities are and how they are measured. <p>1. Integrate academic and information literacy, language and learning support into curricula</p>
<p>Quality teaching programs <i>(including course development and review)</i></p>	<p><i>Mandatory faculty targets:</i></p> <p><u>Benchmarking standards</u></p> <p>Documentation of activity in benchmarking academic standards and identification of gaps</p> <p>Development of benchmarking strategies to address gaps</p> <p><u>Student feedback</u></p> <p>Positive feedback from CEQ above national average for all disciplines</p> <p><i>Faculty-determined targets:</i></p> <p>1. Number of subjects reviewed and improvement in SECTE student satisfaction</p>	<ul style="list-style-type: none"> • Review of courses to include benchmarking • Accreditation of courses – all courses are accredited as appropriate. Ensure that benchmarking is highlighted <p>1. Review subject delivery in each session and address abnormalities in student achievement and satisfaction by:</p> <ul style="list-style-type: none"> • ensuring Subject Review form completed for each subject in every

	<ol style="list-style-type: none"> 2. Market survey conducted and team formed to champion the Software Engineering curriculum 3. Courses reviewed and improved according to delineated strategies 4. Determine a review program which includes all courses and parties external to Faculty to conduct audit of assessment procedures 5. Oversight course and subject reviews conducted in accordance with Plan 	<p>session</p> <ul style="list-style-type: none"> • examining delivery of subjects with low student satisfaction rates <ol style="list-style-type: none"> 2. Develop new syllabus for Master of Software Engineering and benchmark with top international offerings 3. Review all u/g SISAT degree structures including: <ul style="list-style-type: none"> • conducting surveys of graduate satisfaction • identifying strengths and weaknesses in existing courses from both IS and IT • removing non-viable courses • redesigning existing courses to provide a high quality learning outcome 4. Conduct reviews of all SMAS courses over the next five years 5. Ensure Faculty compliance with the University's new Quality Review Framework
<p>Student learning experience (including participation in academic life, delivery methods, teaching spaces, facilities)</p>	<p><i>Mandatory faculty targets:</i></p> <p><u>Student surveys</u></p> <p>SEQ: For each faculty overall, 75% positive feedback (agreement/ strong agreement) to core teaching-related questions</p> <p>Subject Evaluation Survey: For each faculty overall, 65% positive feedback (agreement/ strong agreement)</p> <p>SEQ and CEQ: Higher overall student satisfaction levels (for both international and domestic students)</p> <p><u>Retention</u></p> <p>Higher retention levels</p> <p><i>Faculty-determined targets:</i></p> <ol style="list-style-type: none"> 1. Database of "at risk" students developed and group mentoring established 2. Commenced in Autumn session 2008. Form 'boot camps', workshops, lectures/ seminars and competitions. 3. Reduce attrition rates 	<ul style="list-style-type: none"> • Put in place activities to make students feel more welcome. Eg. Congratulate high achievers, identify and contact weak and failing students, etc. • Activities for targeted groups, eg. Saudi students, Dean's Scholars • Explore feedback mechanisms, eg. Anonymous electronic method of making suggestions, complaints and compliments <ol style="list-style-type: none"> 1. Reinstate SCSSE mentoring scheme for "at risk" first-year undergraduate students 2. Inaugurate the "Computing Club" to provide an informal complementary learning forum for Computer Science students. In particular first year students will be targeted. 3. To collate positive student-focused initiatives undertaken by the various Schools; to share and distribute to all Schools as a guideline for developing similar initiatives.
<p>Student support and equity initiatives (Including for equity, international and first year students)</p>	<p><u>Equity</u></p> <p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> • A 'Women in Engineering' Coordinator has been appointed and an action plan developed, including an email for females within SECTE, social forums and a flyer to market engineering careers for women. 	<p><u>Equity</u></p> <ul style="list-style-type: none"> • Increase female students in non-traditional areas by reviewing course structures to make them more inviting to females and producing marketing materials targeted at females. • Increase female students in non-traditional areas through exposure via the Enrichment Program 2008

	<ul style="list-style-type: none"> Increase number of female enrolments by 10%. <p><u>International</u> <i>Faculty-determined targets:</i></p> <p><u>Other</u> <i>Faculty-determined targets:</i></p>	<p><u>International</u></p> <p><u>Other</u></p>
Support for quality teaching (<i>including casual teachers</i>)	<p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> Two successful ESDF (or similar) applications per year and success in Carrick Institute and Teaching and Learning Grants 	<ul style="list-style-type: none"> Develop processes to encourage and assist academic staff to apply for competitive grants in the area of quality teaching and learning Involve past winners, advertise successes, develop a web page of current projects.
Internationalisation		
International focus in learning and teaching onshore (<i>including curriculum content & perspectives, foreign language skills, cultural awareness</i>)	<p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> Ensure that those international students (at least 70 per session) who qualify for the GCWP are knowledgeable of and enrolled in the program 	<ul style="list-style-type: none"> Check with GCWP manager to ensure timetable clashes with program do not hinder the participation of Informatics' students again
Overseas learning experiences (<i>including study abroad/ student exchange linkages, international degrees</i>)	<p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> Increased number of study abroad linkages in South East Asia 	<ul style="list-style-type: none"> Explore new study abroad mechanisms with Manager, International Relations that might be more attractive to our students. Agreement signed in June 2008 with Nanyang Polytechnic University in Singapore
Strategic offshore teaching programs (<i>where relevant</i>)	<p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> Introduce Graduate Diploma in Digital Systems Security to SIM in October 2008 	<ul style="list-style-type: none"> UOW Academic Program Director of SIM program and International Unit staff to participate in SIM marketing activities and talks with industry partners to establish feeders into new PG course at SIM

2.2.3 Additional Faculty Objectives (*where appropriate*)

Faculty Objective	Targeted Outcomes	Faculty Strategies (<i>Revise from previous plan as necessary</i>)
	<i>Faculty-determined targets:</i>	

2.3 Research

UOW Strategic Objectives 2008-10

Research Goal

Goal 2 – Excellence and innovation in research

- Research of high quality and impact at an international level
- Enhanced capacity to attract external grant funding
- Quality research student scholarship and training
- Strong partnerships with external organisations to achieve mutually beneficial research outcomes
- Enhanced capacity for commercial research and commercialisation of research outcomes

Related Goals

Goal 3 – Dynamic engagement with our communities

- Strong reciprocal relationships that enrich our communities

Goal 4 – Students engaged with learning and University life

- Students engaged as members of the University community
- Efficient and professional management of each phase of the student experience
- A social and physical environment where all students can participate in University life
- Effective communication between students and the University

Goal 5 – A University of international outlook and achievement

- International recognition for quality, standards and outcomes

Goal 7 – Business capacity to advance the achievement of our vision

- A sustainable and reliable infrastructure

2.3.1 Review

2007 in Review

Note: Summary of key outcomes, including key achievements, milestones, awards, challenges and constraints for the reporting areas identified in 2.3.2 below.

HIGHLIGHTS

- Sixteen different staff members awarded ARC grants in 2007
- Grants income increased by 6% over 2006
- Power Quality and Reliability Centre received funding of almost \$1M (over three years) from Integral Energy
- Centre for Statistical and Survey Methodology achieved research strength status
- Pure Mathematics Group; working C* algebras involving four staff previously from Newcastle

Faculty Strategies addressing UOW Objectives

Research income

Increase the level of external funding from national competitive grants, industry and other funding sources by:

- developing an early strategy for developing ARC grant proposals
- identifying funding opportunities and disseminating information
- senior staff assisting junior staff with developing competitive research grant proposals
- external review of ARC grant applications

Progress:

- Faculty increased its share of University ARC funding:
 - 13 new ARC grants (7 Discovery, 5 Linkage) awarded in 2007, and
 - One ARC Linkage International Award
- Increase in number of staff being awarded grants
- Power Quality and Reliability Centre received funding of almost \$1M (over three years) from Integral Energy

Research student training

Enhance the quality of higher degree research student scholarship and training by:

- actively identifying and attracting quality students both internally and externally
- creating strong high-performance research culture

- rewarding high achievers and profiling them as role models

Progress:

- 31 new HDR students enrolled in Autumn session 2007 (Faculty had highest HDR student load at UOW in 2006)
- The Faculty continues to attract high quality research students with more than 20 enrolled in Spring Session 2007
- Seven PhD students graduated in July 2007
- In 2006, the Faculty reached 135.3 HDR EFTSUs

Quality of outcomes

Produce a substantial amount of high quality and high impact research by:

- developing measures of research quality and impact
- identifying mechanisms to support and promote high quality research and ways of making an impact
- reviewing the elements that contribute to groups in other institutions being acknowledged as high impact

Progress:

- Work on RQF submissions identified Faculty key research strengths and highlighted quality and impact of research to staff
- Some 'measures of quality' have been identified, and preliminary journal rankings were formed
- ARC draft journal rankings have been released and all research groups are involved in the review process of the journal rankings

Partnerships and commercialisation

1. Develop and take part in high profile external collaborative R&D partnerships
2. Establish and/or improve relationships with key domestic organisations by:
 - reviewing existing contacts and deciding on priorities
 - identifying key elements of a productive relationship for the Faculty and the identified partner

Progress:

- Some key relationships strengthened, eg Integral Energy and the Attorneys General Office by renewing new contracts
- Other relationships, such as with DSTO, have established

International linkages and reputation

1. Develop and implement an R&D incubation commercialisation plan within the Innovation Campus
2. Establish and/or improve relationship with some key international research universities or other organisations
3. Have a strong international reputation for research through high level of activity on international bodies

Progress:

- Two start-up companies launched
- Significant commercialisation project funded by industry secured
- Five internationalisation grants awarded from the Faculty FIRDS scheme to establish links with international institutions
- Academic staff spent sabbaticals overseas nurturing relationships with international institutions
- Faculty staff involved in conference organisation, professional society activities, and journal editorial boards
- At least three conferences organised by Faculty staff in 2007 (one a major international conference, the *7th International Symposium on Communication and Info Technology*, held in Sydney, 16–19 Oct. 2007)

Researcher environment and recognition

1. Hold quarterly topical ICT presentations for campus community by identifying and compiling a list of high-profile ICT guest speakers and inviting them to address the campus community.

2. Develop another long-term research strength for the Faculty by:
 - identifying key staff and groups
 - recruiting where possible into the identified future strength
 - establishing the essential criteria for evolving into a research strength in concert with PVC(R)
 - ensuring that each School participates in at least one research strength
3. Develop an effective Faculty-wide research management and funding plan in collaboration with the URC by reviewing current funding arrangement and developing a performance-driven funding formula aligned with the RQF

Progress:

- Intense activity related to the RQF has impacted on progressing above objectives and strategies
- Some members from the computer security area have joined TITR
- Centre for Statistical and Survey Methodology recognised as a research strength and employed two new general staff and three new post-docs to strengthen research outputs
- Research student numbers in SMAS continuing to increase
- Research units restructuring process now complete resulting in the creation of two new Research Centres in the School of Information Systems and Technology
- Membership of various Faculty research groups and Centres reviewed
- Intelligent Systems Groups reorganised with new members joining the group, and new director appointed

Additional Faculty Objectives

Research-only staff to be strategically involved with honours teaching program.

Review opportunities for such teaching, such as research-only staff identified to thesis subject coordinator for inclusion into supervision list

Progress:

On-going

Ensure that 85% of Academic staff are research active

Ensure priority allocated in career development interview/plan.

Progress:

- Close to 60 staff members involved in RQF
- 16 different staff members awarded ARC grants in 2007

Establish criteria to ensure study leave is effective (ie undertaken as prescribed)

Improve study leave planning.

Progress:

Study Leave applications reviewed by Heads of Schools and the Dean

Produce bi-annual Faculty Research Report

1. Collating data on research activities
2. Compile and edit into report.

Progress:

- Extensive data collected for RQF but is incomplete and the University RIS not % reliable as a tool for comprehensive reporting
- To be revisited in 2008

Leverage Faculty's data mining expertise to position the Faculty at the forefront of this emerging discipline

Conduct audit of Faculty's current expertise levels

Progress:

Yet to be investigated

Review SMAS research structure

1. Determine structure to manage research within School

2. Each current research group to go up another level
3. Manage impact of new RQF and new staff appointment into School

Progress:

- Centre for Statistical and Survey Methodology achieved research strength status
- SMAS has two top-ranked groups in 2007 RQF
- 80% of staff involved in top-ranked groups in the subsequent RQF round
- RQF documentation nearly complete for the Maths and Stats groups
- Two additional post-docs in Stats and one in Maths to be appointed in 2009 as a result of a successful ARC grant

2008 Update

Note: This area is provided for faculties to list key outcomes during January-June 2008 to inform the development of faculty strategies and objectives below.

Research income

- External grant review process established; ARC Discovery Projects applications reviewed by an external consultant prior to submission to the University's Research Office
- 25 ARC Discovery Project grant applications submitted (20% of University total)
- Two successful Linkage grants (Dr Clarke; Prof Zhu and Dr Goard) and two Discovery grants (Prof Chambers and Prof Wand) in recent rounds. Peter Eklund also received an ARC Linkage Grant with the Australian Museum and researchers from Creative Arts for the Development of Concept Lattices.

External collaborative partnerships

- Director and Deputy Director of TITR appointed recently; external collaborations with industry expected to increase as a result
- Centre for Statistical & Survey Methodology (SMAS) and Centre for Census and Survey Research (Manchester UK) secured a Linkage Grant (\$140,000) under the International Social Sciences Collaboration between the Australian Research Council and the UK Economic and Social Research Council (one of only seven awarded nationally)

Research student training

- 31 HDR students were enrolled in first session of 2008: 21 Ph.D. and 11 Research Masters students. Ten of the new students received APA or UPA scholarships.

Quality of outcomes

- RQF has been disbanded by new Labor government
- 373 publications processed for 2007 – 9% over 2006 total

International linkages and reputation

- Informatics staff continue to be recognised for their excellent research work:
 - David Steel - highly commended in the Outstanding Achievement in Research Partnerships Award. This is for David's partnership with the Australian Bureau of Statistics.
 - Assoc Professor Minjie Zhang - highly commended for Excellence in Research Supervision.
 - Prof Jim Hill awarded the 2008 ANZIAM Medal in recognition of his work in Applied Mathematics
 - Prof Matthew Want elected as a Fellow of the Australian Academy of Sciences, distinguished for his statistical work on nonparametric function estimation
 - Prof Jennifer Seberry awarded the Australasian Combinatorial Mathematics Society Gold Medal
 - Prof Peter Eklund awarded a Fellow of the Australian Computer Society

Partnerships and commercialisation

- New MICD, Henry Valk, appointed and commenced. Unfortunately, Mr Valk has resigned and as such the recruitment process for a replacement will commence shortly.

Researcher environment and recognition

- No call for applications to established new research strengths, however Faculty research structure well positioned for when call comes
- Discussion with URC re Faculty funding outside of research strength to take place shortly; Faculty continues to find strategic areas based on research outputs

Additional faculty objectives

- Almost all staff belong to a research group or centre, and most have research outputs.
- In progress with bi-annual Faculty Research Report due to be published by November 2008

2.3.2 Faculty Strategies and Targets under UOW Objectives

Note: Strategies to ensure that staff profile and skills are adequate to implement the Research strategies below should be included in Section 3.1.2.

Reporting Areas <i>(See above for UOW Objectives)</i>	Targeted Outcomes <i>(For background, refer to App B)</i>	Faculty Strategies <i>(Revise from previous plan as necessary)</i>
Research quality and impact	<p><i>Mandatory faculty target for Science, HBS, Grad Med School, Grad School of Bus - CHSD):</i></p> <p>Building of health and medical research capacity through Illawarra Health and Medical Research Institute</p> <p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> ▪ Proportion of publications and other research outputs that meet the ERA criteria ▪ Citation rates ▪ National/international recognition and awards 	<p>(The Faculty is involved with the Graduate Medical School through a newly created statistics position)</p> <ul style="list-style-type: none"> ▪ Produce a substantial amount of high quality and high impact research by: <ul style="list-style-type: none"> • developing measures of research quality and impact consistent with national and international standards • identifying mechanisms to support and promote high quality research and ways of making an impact • reviewing the elements that contribute to groups in other institutions being acknowledged as high impact
External grant funding	<p><i>Mandatory faculty target:</i></p> <p>Improved quality of applications for:</p> <ul style="list-style-type: none"> - Aust Competitive Grants (including ARC and NHMRC) - Grants from other sources <p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> • More than 5% increase in external funding over 2008 	<ul style="list-style-type: none"> ▪ Increase the level of external funding from national competitive grants, industry and other funding sources by: <ul style="list-style-type: none"> • developing an early strategy for developing ARC grant proposals • identifying funding opportunities and disseminating information • establish new industry partnerships • senior staff assisting junior staff with developing competitive research grant proposals

Research student training	<p><i>Mandatory faculty targets:</i></p> <p>80% positive feedback from PREQ</p> <p>Decrease in number of issues raised in Annual Progress Reports</p> <p>Higher proportion of quality research students</p> <p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> ▪ Increased HDR completion numbers and rates ▪ Number of national and international student awards ▪ Rate of student-based quality publications 	<ul style="list-style-type: none"> • Review processes and ensure supervisors are aware of requirements • Actively recruit overseas and make full use of new scholarships opportunities such as Endeavour <ul style="list-style-type: none"> ▪ Enhance the quality of higher degree research student scholarship and training by: <ul style="list-style-type: none"> • actively identifying and attracting quality students both internally and externally • creating strong high-performance research culture • reviewing the supervision arrangements of HDR students • rewarding high achievers and profiling them as role models
External research partnerships: domestic	<p><i>Mandatory faculty target:</i></p> <p>Improved quality of ARC Linkage grant applications</p> <p><i>Faculty-determined targets:</i></p> <ol style="list-style-type: none"> 1. 20% increase in ARC linkage grant funding 	<ul style="list-style-type: none"> • Plan well in advance and apply Discovery Grant mechanism to Linkage proposals <ol style="list-style-type: none"> 1. Develop and take part in high profile external collaborative R&D partnerships 2. Establish and/or improve relationships with key domestic organisations by: <ul style="list-style-type: none"> • reviewing existing contacts and deciding on priorities • seeking new partnerships • identifying key elements of a productive relationship for the Faculty and the identified partner
External research partnerships: international	<p><i>Faculty-determined targets:</i></p> <ol style="list-style-type: none"> 1. Plan researched and developed 2. Quality and quantity of such relationships and level of international refereeing and thesis examination 3. level of international refereeing and thesis examination 	<ul style="list-style-type: none"> • Have a strong international reputation for research through high level of activity on international bodies • Increase the number of international visiting fellows in the Faculty • Increase the visits of faculty staff to international institutions • Increase the number of PI's on ARC grants • Establish cotutelle agreements with international institutions for co-supervision of HDR students • Use courses at SIM and contacts developed in Singapore to develop profile there
Commercial research	<p><i>Mandatory faculty targets:</i></p> <p>Increase in commercial research activity</p> <p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> • 20% increase in commercial research projects and 	<ul style="list-style-type: none"> • Use two research points as the focus for commercial activity • Consolidate existing partnerships

	consultancies	<ul style="list-style-type: none"> • Seek new industry projects
Commercialisation	<p><i>Mandatory faculty targets:</i></p> <p>Targets for lodgement with MICs of Intellectual Property Notification Forms to be set by faculties in consultation with MICs</p>	<ul style="list-style-type: none"> • When MIC appointed, increase the Faculty involvement and awareness of this role

2.3.3 Additional Faculty Objectives (where appropriate)

Faculty Objective	Targeted Outcomes	Faculty Strategies <i>(Revise from previous plan as necessary)</i>
Ensure that 85% of Academic staff are research active	<p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> ▪ Metric set for research activity (using ERA) ▪ Percentile achieved: one year. 	<ul style="list-style-type: none"> ▪ Clarify minimum requirements for “research active” status ▪ Ensure priority allocated in career development interview/plan.
Establish criteria to ensure study leave is effective (ie undertaken as prescribed)	<ol style="list-style-type: none"> 1. Number of staff taking study leave with well developed research plans as scheduled and as identified in workload documents. 2. Study leave output. 	<ul style="list-style-type: none"> ▪ Improve study leave planning ▪ Consider an earlier Faculty deadline to give more time for feedback and revision
Produce bi-annual Faculty Research Report	<ol style="list-style-type: none"> 1. Data entered into RIS 2. Faculty Research Report produced in 2007 	<ol style="list-style-type: none"> 1. Collating data on research activities 2. Compile and edit into report.
Leverage Faculty's data mining expertise to position the Faculty at the forefront of this emerging discipline	<ul style="list-style-type: none"> ▪ Audit complete 	<ul style="list-style-type: none"> ▪ Conduct audit of Faculty's current expertise levels
Review Faculty research structure	<ol style="list-style-type: none"> 1. Structure determined and communicated to stakeholders 2. Have 85% of staff involved in a research strength or strategic research initiative 	<ol style="list-style-type: none"> 1. Determine structure to manage research within the Faculty 2. At least one research group to become a research strength in the University 3. Manage impact of new ERA process

2.4 Community Engagement

UOW Strategic Goals and Objectives 2008-10

Goal 5 – Dynamic engagement with our communities

- A University that is accessible, outward reaching and responsive to its communities
- Strong reciprocal relationships that enrich our communities
- Integration of community engagement in our academic activities
- Enhanced educational aspirations and higher education participation in our regions

2.4.1 Review

2007 in Review

Note: Summary of key outcomes, including key achievements, milestones, awards, challenges and constraints for the reporting areas identified in 2.4.2 below.

HIGHLIGHTS

- National high-profile industry Maths and Stats clinic (MISG 2007) held in Wollongong with six companies and 120 delegates attending attracting significant media and community interest; MISG 2008 confirmed with four industry partners (MISG 2009 also to be held in Wollongong)
- Maths Teachers' Day held in July with many high school maths teachers participating
- Board of Studies Curriculum Review
- AMSI along with BlueScope Steel funding, ran a mathematics text book project in the Wollongong area
- SECTE ran its High School Challenge for the first time and was successful in attracting many high school students from around the region

Faculty Strategies addressing UOW Objectives

Sharing knowledge

Conduct research seminars and/or mini-workshops on a quarterly basis targeted at local industry with a view to fostering engagement

Progress:

No progress achieved

Educational growth and development

Review and consolidate the Faculty Enrichment Program ensuring appropriate evaluation criteria implemented

Progress:

- New format Program conducted on Saturdays and attracting 123 students from local High Schools
- Feedback sought from stakeholders; evaluation and development for 2008 in progress

2008 Update

Note: This area is provided for faculties to list key outcomes during January-June 2008 to inform the development of faculty strategies and objectives below.

Educational growth and development

- New format again established devolving responsibility for delivering the Enrichment Program to individual Schools but with Faculty administrative support. Program now delivered on Friday afternoons (SECTE) and Saturday mornings (SCSSE and SMAS) between 3 May and end September. Over 170 participants registered for the Program in 2008
- Philip Laird awarded the Vice Chancellor's individual Community Engagement Award for his significant and sustained commitment to the community in multiple roles over many years
- Graham Williams has addressed students at Year 10 Information Evenings throughout June, regarding HSC Scaling

- SECTE's High School Challenge was held over two days, 25 and 26 June. The event was successful with 470 students from 13 high schools in attendance

2.4.2 Faculty Strategies and Targets under UOW Objectives

Reporting Areas <i>(See above for UOW Objectives)</i>	Targeted Outcomes	Faculty Strategies <i>(Revise from previous plan as necessary)</i>
Communication, community access and knowledge exchange	<i>Faculty-determined targets:</i> <ul style="list-style-type: none"> ▪ Four events held during 2008 	<ul style="list-style-type: none"> ▪ Conduct research seminars and/or mini-workshops on a quarterly basis targeted at local industry with a view to fostering engagement
Reciprocal relationships	<i>Faculty-determined targets:</i>	
Student access <i>(including school partnerships, outreach, equity initiatives)</i>	<i>Faculty-determined targets:</i> <ul style="list-style-type: none"> • Increased awareness and interest in the Faculty from prospective students 	<ul style="list-style-type: none"> • Continue the AMSI/BlueScope Steel maths text book project • Conduct more high school visits to encourage interest in Informatics

Note: Report on **workplace/experiential learning initiatives** included in "2.2 Learning & Teaching" under "Development of Graduate Qualities".

2.4.3 Additional Faculty Objectives (where appropriate)

Faculty Objective	Targeted Outcomes	Faculty Strategies <i>(Revise from previous plan as necessary)</i>
	<i>Faculty-determined targets:</i>	

Part 3 Resources

3.1 Staff

UOW Strategic Goals and Objectives 2008-10

Goal 6 – Versatile, skilled and committed staff

- An adaptable workforce with skills aligned to strategic directions
- A supportive, rewarding and equitable work environment (including OH&S)

Goal 7 – Business capacity to advance the achievement of our Vision

- Strategic deployment of resources and information
- A sustainable and reliable infrastructure

3.1.1 Review

2007 in Review

Note: Summary of key outcomes, including key achievements, milestones, awards, challenges and constraints for the reporting areas identified in 2.3.2 below.

HIGHLIGHTS

- Carrick Citation for Dr Anne Porter (SMAS member and Quality 101 working party of FEC)
- Peer Teaching awards to Dr Son Lam Phung (SECTE) and Dr Anne Porter (SMAS)
- Faculty's static web pages migrated to the Content Management System and all Administrative Staff trained in new system
- Chinese web pages complete and live on Faculty site (first UOW faculty to develop and offer multilingual web pages)

Faculty Strategies addressing UOW Objectives

Training and career development

1. Provide access to targeted development opportunities and/or bridging programs for EEO eligible staff
2. Leverage opportunities afforded by AMSI, ARG and MISG

Progress:

- Bridging programs yet to be undertaken
- High profile Honours courses being run using Access Grid Room (AGR)
- MISG 2007 successful with six companies and 120 delegates attending
- Successful launch of AMSI maths school text books in Illawarra region
- Linkage grant opportunities discussions ongoing with number of MISG partners
- MISG projects being finalised with NZ Steel confirmed as industry partner and discussions underway with Integral Energy, Geoscience Aust and a CRC for medical imaging
- SMAS involved with successful CASR grant at Sydney Uni to develop remote teaching at Honours level. UOW to be heavily involved due to AGR experience; Head of School on appointment committee for new CASR grant staff at UTS

Employment equity and diversity

1. Ensure work practices are non-discriminatory
2. Monitor and develop new staff

Progress:

- Team teaching in place in SCSSE and SECTE for most subjects to provide more flexibility in the provision of development opportunities
- As new SECTE staff appointed they are assigned appropriate mentors from existing staff

- Career development and planning interviews are utilised effectively to assist the professional development of staff and assist in their promotion.
- Teaching loads for 2008 reasonable and balanced and also allow for a number of staff to go on study leave.
- All SMAS probation cases successful with HOS spending significant time assisting staff members prepare for promotion and discussing probation requirements with the new staff.
- SEDLO working in the Faculty (jointly with Engineering) and has instigated several projects; *Conversation Groups* initiative between staff and students successful

Occupational health and safety

1. Implement identified strategic KPIs and establish SECTE OH&S sub-committee to develop and review SECTE OH&S policies
2. Implement the OH&S Strategic Plan set for Informatics

Progress:

- For SECTE:
 - Sub-committee established and operational. Inspections undertaken and reports lodged
 - Policy review completed and report prepared for approval by the OH&S Committee
 - Laboratory Demonstration Guide had been developed and information sessions given to demonstrators - received favourably. Staff introductory sessions scheduled for late September. Recommendation to School Committee to create School Policy that all academics receive introductory laboratory training in week one of Autumn session. Building 6 inspection completed, problems being rectified, currently 75% complete. Laboratory manager has been attending several OHS courses to become familiar with University policies. Further safety guidelines/procedures being implemented
- Biannual WAC survey completed
- All WAC members have completed both training modules
- Awareness of incident reporting system (SafetyNet) increased
- Inspection schedule development in progress
- Only one incident reported since August

Additional Faculty Objectives

Create a more inclusive and mentoring Faculty culture for equity group members

1. In cooperation with CEDIR, develop best practice case studies for cultural exclusivity with particular reference to work groups
2. Develop appropriate mentoring linkages for new staff and for staff preparing for probation and promotion

Progress:

- SCS&SE HOS mentoring new staff with regards to probation and career development issues
- Informal mentoring established within SECTE in areas of research and governance
- Career development and planning interviews underway in SECTE to assist in professional development and promotion
- Three SMAS staff currently undertaking probation process

Improve staff morale in SCSSE

Increase public appreciation of efforts

Progress:

- Four staff publicly acknowledged for their efforts
- Willy Susilo, Daniel Saffiotti, Khin Win and Aditya Ghose publicly acknowledged for *Trail Blazer*

Form the new School of Information Systems and Technology comprising staff from Informatics and Commerce

1. Develop a shared vision by:
 - exploring staff attitudes to the new School
 - naming the new School
 - identifying areas of teaching expertise
 - designing short and long term goals for the new School
 - assisting staff to articulate their career goals and to develop strategies for realising them

2. Develop a sense of belonging by:
 - providing opportunities for staff to socialise
 - installing noticeboards in the building and purchasing business cards
 - identifying possible sites for staff co-location
 - obtaining UOW approval for identified site and designing suitable office and meeting spaces
 - planning for phased transfer of staff to new space
 - arranging for physical relocation to new space

Progress:

- New School progressing well, workloads and career interviews underway.
- Suitable office and meeting spaces identified and staff relocated
- Several social functions held
- continuing to map staff teaching expertise
- Operational procedures identified and in place
- All staff completed one work load session form and currently completing second round, promotions and probations round, staff career development interviews completed.
- Conducted formal School launch and social function (with partners); end and start of session parties held
- Signage in new building nearly complete, business cards ordered as needed, staff directory up-to-date
- PA employed to support the new HoS

Provide a pleasant working environment for SMAS staff

1. Provide all staff with adequate physical facilities
2. Maintain current inclusive and collegial atmosphere

Progress:

- Large postgraduate space developed allowing space for new staff
- New staff well integrated as a result of social functions held and participating in a range of teaching, administrative duties and other activities.
- Space issue still critical; large postgraduate space now occupied.

2008 Update

Note: This area is provided for faculties to list key outcomes during January-June 2008 to inform the development of faculty strategies and objectives below.

Training and career development

- SMAS hosting AMSI-sponsored workshop; also asked to host AMSI Summer School in 2009 (funded by AMSI CASR grant of \$220,000 and expecting approx 75 national Honours and graduate student attendances). This represents a 2200% return on subscription cost
- AGR used to teach undergraduate students in the BMathEd degree and Honours courses remotely
- MISG2008 successful presenting seven projects tackled by 100 delegates

Employment equity and diversity

- Teaching loads for 2008 reasonable and balanced and also allow for a number of staff to go on study leave.
- Three new SMAS staff applied for ARC grants in 2008 and currently co-supervising HDR students
- Three SMAS staff preparing for probation and two preparing promotion applications
- New SMAS teams instigated for teaching new Engineering Maths subjects (Math141 and 142)

Occupational health and safety

- SECTE Sub-committee Terms of Reference currently being reviewed
- Inspection schedule drafted; Schools to be sent reminders when inspections due with reports flowing back to WAC

Inclusive and mentoring Faculty culture for equity group members

- SCSSE Head of School mentoring new staff with regards to probation and career development

issues

- Informal mentoring established within SECTE in areas of research and governance
- Career development and planning interviews underway in SECTE to assist in professional development and promotion
- Three SMAS staff currently undertaking probation process

Improve staff morale in SCSSE

- Start of Session, and End of Session get togethers held
- Inclusion of activities on SCSSE news page
- SCSSE noticeboard used to highlight recent publications

New School of Information Systems and Technology comprising staff from Informatics and Commerce

- New School progressing well; routines and processes established for Staff Workload Interviews and Career Development Interviews. Similar process established for Promotions/Probations realising good results in last round

Provide a pleasant working environment for SMAS staff

- Space issue still critical and becoming increasingly more so as more research-income-funded staff, postdocs and graduate students arrive
- Loss of meeting room to house Faculty Committee attendance numbers heavily impacting on Faculty's communication capabilities; currently Committee meetings held in various locations secured around campus resulting in significantly reduced attendance numbers (down 50%)

3.1.2 Staff Profile Planning – alignment to UOW/Faculty strategic directions

Note: The following UOW Indicators and Targets are key references for developing faculty staffing strategies and targets.

UOW Indicator	UOW Targets (to be monitored centrally)
Attraction and retention of staff aligned to strategic directions	An average of two applicants deemed appointable to 80% of advertised academic positions and general staff positions at level 6/7 and above
	Less than 8% voluntary employee-initiated turnover for all positions
	Less than 6% voluntary employee-initiated turnover for key staff positions
Quality of staff	Internal applicants to comprise 25-33% of deemed appointable list for competitively advertised positions

Targeted Outcomes	Faculty Strategies			
	Recruitment	Preparation for Career Advancement	Retention	Other
Current teaching requirements • [eg Increase staffing strengths in x discipline] •	[eg Up to 2 new positions by (action)]	[eg Increase % of successful probation & promotion applications by (action)]	[eg Maintain current number of academics by (action)]	
Future teaching directions • Replacement of retiring/retired staff • Continuation/renewal of contracts	• At least 4 teaching staff to be recruited to replace retired/retiring staff			

	<ul style="list-style-type: none"> Up to 2 positions to be continued/renewed 			
Current research requirements <ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Director of TITR 			
Future research directions <ul style="list-style-type: none"> Replacement of retired/retiring staff 	Up to 5 research positions to be recruited			

3.1.3 Staff Development and Welfare

Reporting Areas (See above for UOW Objectives)	Targeted Outcomes (For background, refer to App B)	Faculty Strategies (Revise from previous plan as necessary)
Professional development/training	<p><i>Mandatory faculty targets:</i></p> <p>The following favourable response rates (above “satisfactory”) to the UOW Workforce Survey:</p> <ul style="list-style-type: none"> “Learning and development” dimension – 70% “Organisational commitment” dimension – 75% <p><i>Faculty-determined targets:</i></p> <ol style="list-style-type: none"> Raise awareness as per participant evaluations: number of applicants taking up identified opportunities a) Funding received from AMSI greater than subscription cost b) Use AGR facilities to teach within UOW campuses and with national and international partners c) Use MISG conferences to develop linkage partners and have UOW recognised as a strength in the application of Maths/Stats to industry Women in SMAS demonstrate improved research and career outcomes Increased membership of WISENet Appropriate arrangements established 	<ol style="list-style-type: none"> Provide access to targeted development opportunities and/or bridging programs for EEO eligible staff Leverage opportunities afforded by AMSI, ARG and MISG Encourage Associate Professor Jacqui Ramagge to provide mentoring and support for women in the School of Mathematics and Applied Statistics Encourage casual women and female PhD students to attend WISENet events Develop an appropriate reporting and development structure where there is a conflict of interest in SECTE
Employment equity and diversity	<p><i>Mandatory faculty targets:</i></p> <ul style="list-style-type: none"> Indigenous employment achieved Work experience secured for at least one person 	<ul style="list-style-type: none"> Identify opportunities to employ an Indigenous trainee Provide work experience opportunities for people with disabilities

	<p><i>Faculty-determined targets:</i></p> <ol style="list-style-type: none"> 1. Team-teaching introduced across Faculty to provide more flexibility in provision of development opportunities 2. Balanced workloads, range of teaching classes allocated 	<ol style="list-style-type: none"> 1. Ensure work practices are non-discriminatory 2. Monitor and develop new staff
Occupational health and safety	<p><i>Mandatory faculty targets:</i></p> <p>Increase in number of hazards reported</p> <p>Decrease in amount of lost time for all claims</p> <p>Delay in reporting incidents less than 2 days</p> <p>Decrease in number of manual handling incidents involving lost time</p> <p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> ▪ Increased hazard reporting by 50% over benchmark ▪ Raise awareness of prompt injuries reporting ▪ Hazard inspection audit complete 	<ul style="list-style-type: none"> ▪ Build awareness of SafetyNet reporting system among staff ▪ Implement identified strategic KPIs and establish SECTE OH&S sub-committee to develop and review SECTE OH&S policies ▪ Ensure all staff have completed the appropriate training
Recruitment	<p><i>Faculty-determined targets:</i></p> <ul style="list-style-type: none"> ▪ Increased % of women 	<ul style="list-style-type: none"> ▪ Continue to identify opportunities to attract women into academic positions in the faculty

3.2 Other Faculty Resources

List major resource implications for the faculty of strategies included in this Report. Consider, for example, space, equipment and information technology.

Relevant Strategies <i>(Brief reference only)</i>	Major resource implications <i>(Dot points listing relevant units and implications for those units)</i>
Student learning experience	<ul style="list-style-type: none"> • Attempting to replace routers in Systems lab with the assistance of Cisco • SECTE requires new labs for postgraduate students and research labs • SISAT wishes to set up a Radio Frequency Identification and Certification Centre and has made an application for space in building 39. Will need funding for modifications and business equipment
Seek further quality space	<ul style="list-style-type: none"> • Enough to house staff and develop new labs that are less computer based • Meeting and seminar rooms
Review lab usage and postgraduate space	<ul style="list-style-type: none"> • Seek funding for redesign so that space is more attractive

3.3 Resource Implications for Professional Units

List major resource implications for Professional Units of strategies included in this Report, with reference to course approval documents where relevant. Consider, for example, Library, ITS, Student Services, CEDIR, Research & Innovation Division, ARD, UniAdvice and Personnel.

Relevant Strategies <i>(Brief reference only)</i>	Major resource implications <i>(Dot points listing relevant units and implications for those units)</i>
Domestic and international recruitment	UniAdvice
Retiring Personnel	Personnel services: appropriate strategies to manage retiring staff whilst creating opportunities to recruit new early career staff
Grants	CEDIR: participate in developing new educational opportunities as they arise, particularly in the form of assistance for Carrick grants
Student experience	<ul style="list-style-type: none">• Student Services: find ways of improving the student experience• ARD: improve student experience for domestic and also offshore international students

3.4 Note regarding Budget

This report will be a key reference for budget discussions with the Deputy Vice-Chancellor (Operations). The Financial Services Unit will make a separate request for projections for income and expenditure in mid-June.

UOW Planning Environment A Snapshot as at May 2008

Content

1. UOW-in-Brief May 2008
2. UOW Strategic Plan 2008-10
3. The International Higher Education Scene 2008
4. The Australian Higher Education Scene 2008
5. Issues for the Student Experience
6. Staff Issues
7. Quality & Performance

1. UOW-in-Brief, May 2008

Campuses: Wollongong, Shoalhaven, Innovation Campus, UOW Dubai

Education Centres: Batemans Bay, Bega, Loftus, Moss Vale (and Sydney Business School)

Faculties: Arts, Commerce, Creative Arts, Education, Engineering, Health and Behavioural Sciences, Informatics, Law, Science

Graduate Schools: Graduate School of Business, Graduate School of Medicine

Students	Student Load	Student Numbers
Domestic Undergraduate	8301.5	10842
Domestic Postgraduate Coursework	638.2	1398
Domestic Higher Degree Research	630.1	875
International Onshore	2127.7	3776
International Offshore ex Dubai	378.3	933
International Dubai	1154.75	2256
Total	13,231	20,080
Staff	FTE	
Academic	919.03	
General	858.65	
Total	1777.68	

2. Strategic Plan 2008-10

UOW Strategic Priorities 2008-10

The areas of critical and distinctive focus over this planning cycle:

- Sustain national and international recognition for excellence and enterprise
- Promote ethical practice in education and research as an integral part of the University culture
- Maintain a leading research performance through outstanding scholarship, ground-breaking discovery, collaborative networks and commercialised outcomes
- Strengthen and sustain a reputation for excellence in learning and teaching through innovation and quality student outcomes
- Differentiate the UOW Student Experience as engaging, motivating, personalised and internationally-oriented
- Ensure UOW students and graduates are valued, in their communities and by employers, for their knowledge, skills and distinctive qualities
- Advance the Innovation Campus as a successful space for developing new ideas and applications through University-business partnerships
- Develop excellence in health and medical research and innovation through the Illawarra Health and Medical Research Institute
- Position UOW for recognition as a pre-eminent provider of medical training for regional, rural and remote Australia
- Strengthen connections to the community through improved channels for interaction and mutually beneficial projects
- Promote responsible environmental management across all UOW locations
- Enhance staff capacity to achieve excellent outcomes and ensure the University's continued success
- Embed quality processes and professional business planning and practice in all areas to sustain excellence, financial security and a competitive advantage

UOW Goals 2008-10

Core Goals: Central to our position as an international university connected to and advancing global and local communities:

1. Excellence and innovation in learning and teaching
2. Excellence and innovation in research
3. Dynamic engagement with our regional, national and international communities

Enabling Goals: Interconnected and cutting across the core goals to enable UOW to deliver the key success factors:

4. Students successfully engaged with learning and University life
5. A university community of international outlook and achievement
6. Skilled and informed staff with the capability and commitment to achieve our goals
7. Business capacity to advance the achievement of our Vision.

3. The International Higher Education Scene 2008

THE "KNOWLEDGE ECONOMY"	<p>The central role of universities in creating "knowledge workers" for the knowledge economy.</p> <p>Recognition of higher education as a global commodity.</p> <p>For the European approach, see <i>The Lisbon Strategy</i> http://ec.europa.eu/growthandjobs/index_en.htm</p> <p>The aim is to make the European Union <i>"the most dynamic and competitive knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment by 2010"</i></p>
THE BOLOGNA PROCESS	<p>The Bologna Process aims to promote greater consistency and portability across the European higher education systems. The process is likely to have a profound effect on the development of higher education globally. (The Australian higher education system needs to continue to be seen as being of high quality and relevant to international standards and requirements).</p>
MISSION DIVERSITY	<p>Renewed debate on international scene (see also national scene below)</p>
IMPACT OF INTERNATIONAL RANKINGS	<p>Shanghai Jiao Tong, Times Higher Education</p>
INDIA AND CHINA	<p>Entrepreneurial culture transforming the economies of India and China and driving growth in home-based e provision of university-level education and R&D</p>
GLOBALISATION OF HIGHER EDUCATION	<p>Growth in transnational programs, multinational campuses, international private providers</p>
GLOBAL WARMING	<p>Challenge for research and innovation, learning & teaching and management</p>

4. The Australian Higher Education Scene 2008

FUNDING (2008-09 FEDERAL BUDGET)	<ul style="list-style-type: none"> ▪ An immediate injection into the system of \$500million via the one-off Renewal Fund is intended to help universities "rebuild their campus infrastructure". \$9.7m to UOW. ▪ A new \$11 billion resource - the Education Investment Fund, which adds \$5 billion in new money to the previous government's \$6 billion Higher Education Endowment Fund ▪ 559.6 million over four years to simplify university funding structures and to better target national skills priorities. From 1 January 2008 the Government will reduce the number of clusters funded under the Commonwealth Grant Scheme (CGS) from 12 to 7, allowing universities more flexibility to allocate places across different disciplines
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	<p>and respond to student and employer demand.</p> <ul style="list-style-type: none"> ▪ The Government will increase CGS funding to the disciplines of Mathematics, Statistics, Allied Health, Engineering, Science, Surveying, Clinical Psychology, Education, Nursing, Social Studies, Behavioural Science, Medicine, Dentistry and Veterinary Science.
REVIEW OF AUSTRALIAN HIGHER EDUCATION	<p>Announced by federal Minister for Education in March 2008.</p> <p>Purpose: To examine the current state of the Australian higher education system against international best practice and assess whether the education system is capable of:</p> <ul style="list-style-type: none"> ▪ contributing to the innovation and productivity gains required for long term economic development and growth; and ▪ ensuring that there is a broad-based tertiary education system producing professionals for both national and local labour <p>See:</p> <p>http://www.dest.gov.au/NR/rdonlyres/E447DAE5-E64F-4302-A356-0ACE0BD2A1C5/20706/HEReviewToR1.pdf</p>
DIVERSITY & MISSION-BASED COMPACTS	<ul style="list-style-type: none"> ▪ The new Australian Government aims to introduce mission-based compacts to provide public universities with greater operating autonomy within a total funding envelope agreed on a three-yearly basis. Universities are being encouraged to “pursue <u>distinctive missions</u> within a public reporting framework of mission-based goals agreed outcomes and performance standards”. <p>After consultation, compacts are expected to be negotiated with each university in 2009 for implementation in 2010.</p> <ul style="list-style-type: none"> ▪ The Government will provide \$208.6 million over four years to promote structural reform by universities to support greater specialisation, diversity and responsiveness to local labour market needs. Priority will be given to regional and smaller metropolitan universities.
DIVERSITY & CURRICULUM	<p>The University of Melbourne has already undertaken full curriculum reviews and developed a differentiated model; Western Australia and Macquarie are working through their own remodelling. This readies them for the federal Government’s diversity agenda (see above) and also targets emerging disciplinary trends and the needs of the future workplace.</p> <p>See:</p> <p>UWA: http://www.coursestructuresreview.uwa.edu.au/</p> <p>MACQUARIE: http://www.mq.edu.au/learningandteachingcentre/for_staff/projects/curriculum_renewal/curriculum_renewal.htm</p> <p>MELBOURNE: http://www.futurestudents.unimelb.edu.au/about/m_model/index.html</p>
FEDERAL POLICY INITIATIVES -	<ul style="list-style-type: none"> ▪ Phasing out of full-fee student places from 2009

STUDENTS	<ul style="list-style-type: none"> ▪ Doubling of undergraduate Commonwealth Scholarships; doubling of Australian Postgraduate Scholarships by 2012 ▪ To address the shortfall in critical disciplines, fees for new students studying maths and science will be reduced by approximately 50 per cent. ▪ Proposed Scholarships for a Competitive Future initiative to include two key components: <ul style="list-style-type: none"> - The new National Priority Scholarships - to assist students to undertake courses in priority areas such as medicine and engineering. - The new National Accommodation Scholarships - to help students relocate to another state and enrol in courses not available near their home.
ERA	<p>A new research quality and evaluation system, The Excellence in Research for Australia (ERA) initiative, is being developed by the Australian Research Council (ARC) in conjunction with the federal Department of Innovation, Industry, Science and Research.</p> <p>ERA will assess research quality using a combination of metrics and expert review by committees comprising experienced, internationally-recognised experts.</p> <p>It will also assist with the Government's plans to introduce funding compacts for universities.</p> <p>See: http://www.minister.industry.gov.au/senatorthehonkimcarr/pages/neweraforresearchquality.aspx</p>
INNOVATION REVIEW	<p>A wide ranging review of Australia's national innovation system recognises the vital role innovation plays in boosting productivity and international competitiveness.</p> <p>An expert panel is looking at ways to increase innovation performance across the economy, to ensure that business has better access to new ideas and new technologies and to bridge the divide between industry and research.</p>
SKILLS SHORTAGE AND GRADUATE QUALITIES	<p>Emphasis across the sector on work-integrated learning.</p> <p>See latest (May 2008) <i>Universities Australia</i> position paper, "A National Internship Scheme: enhancing skills and work-readiness of Australian"</p> <p>http://www.universitiesaustralia.edu.au/content.asp?page=/news/media_releases/2008/uniaus_media_11_08.htm</p>

5. Issues for Student Experience

- Latest figures from the sector suggest that, in one generation, Australian Higher Education has become the fourth most expensive system in the world for students
- Challenge to provide services and amenities for:
 - Enriching student experience (for all student groups, including international and equity)
 - Support services (childcare, careers service etc)
 - Student advocacy and representation

6. Staff Issues

- 70 million “baby boomers” will leave the workforce in the next 15 years; only 35 million will replace them
- Aging research staff (with consequent need to foster careers of early researchers carefully)
- Competition across the sector for staff in targeted areas
- Need for strategic approach to staff planning

7. Quality and Performance

- The Australian Universities Quality Agency (AUQA) has launched the second audit round – Quality Audit 2 – and will conduct the first audits in 2008; two themes will be selected for assessment with an emphasis on academic standards and external benchmarking. The UOW audit is expected to be held in 2011.

Performance Monitoring Framework Faculty Targets 2008-09

The 2008-10 UOW Strategic Plan identifies 13 *Key Performance Indicators (KPIs)* as “the institutional markers of the University’s progress towards meeting its goals and of our capacity to meet the standards, expectations and needs of those who have a key stake in the success of UOW’s mission”.

KPIs:

- Learning and Teaching Performance
- Research Performance
- Community Perception
- Student Demand
- Student Outcomes
- Student Perception
- International Recognition
- Employer Perception
- Staff Perception
- Staff Capability
- Environmental Impact
- Financial Performance
- Resource Utilisation

Underpinning the Plan is a Performance Monitoring Framework (PMF) which is not a public document as it contains targets that can be adjusted over time. The Indicators, Measures and Targets in the PMF are reviewed annually.

Faculty activity is critical to the achievement of many of the institutional targets set out in the PMF. Relevant institutional targets and related mandatory faculty targets are set out below. Faculties should also include their own additional targeted outcomes in their Faculty Plan as appropriate.

Goal 1: Excellence and Innovation in Learning & Teaching

Indicators	Relevant Institutional Targets	Mandatory Faculty Targets 2008-09
Quality and impact of teaching programs	Increased level of activity in benchmarking academic standards	Documentation of activity in benchmarking academic standards and identification of gaps Development of benchmarking strategies to address gaps
	Positive feedback from CEQ above national average for all disciplines	Same as institutional target
Student satisfaction with their learning experience and the quality of teaching	Student survey benchmarks <u>Student Experience Questionnaire:</u> For each faculty overall, 75% positive feedback (agreement/ strong agreement) to core teaching-related questions <u>Subject Evaluation Survey:</u> For each faculty overall, 65% positive feedback (agreement/ strong agreement with survey Questions 1-6)	Same as institutional targets
Graduate readiness for employment	Proportion of students obtaining employment above the national average for all disciplines	Same as institutional target
	Increased student participation in work-based learning	Documentation of opportunities provided by the faculty for students to

		undertake experiential learning in the community
	All faculties with active Faculty Advisory (Visiting) Committee schedule in place by Feb 09	Same as institutional targets
Integration of Graduate Qualities into curriculum	Graduate Qualities cited in all new courses and subjects by Feb 09	Same as institutional targets
	For each faculty, 75% positive feedback to Graduate Qualities questions in CEQ and SEQ	Same as institutional target

Goal 2: Excellence and Innovation in Research Performance

Indicator	Relevant Institutional Targets	Mandatory Faculty Targets 2008-09
Recognition of quality and diversity in research activity	>5% increase in Australian Competitive Research Grants and Research Grant income from other sources	Improved quality of applications
	30 Intellectual Property discoveries lodged	Targets for lodgement with MICs of Intellectual Property Notification Forms to be set by faculties in consultation with MICs
Quality of HDR enrolments	80% positive feedback from PREQ	Same as institutional target
	5-10% increase in number of students in research strengths	Higher proportion of quality research students
	5% reduction in number of students overtime 5% increase in HDR completion rates	Decrease in number of issues raised in Annual Progress Reports
Impact of strategic external research partnerships	At least 10 new research partnerships developed in 2008 15% increase in research partnerships with internationally recognised organisations and/or companies 20% increase in the number of commercial research projects worth > \$100K	Increase in commercial research activity
	Improve ARC Linkage grant performance	Improved quality of applications
Status in health and medical research and innovation	Improve NHMRC grant performance by 2010	Building of research capacity in the Faculties of Science, HBS, Graduate Medical School, Graduate School of Business (CHSD) Improved quality of applications

Goal 3: Dynamic engagement with our communities

Indicator	Relevant Institutional Targets	Mandatory Faculty Targets 200809
Community engagement embedded in core	Increase in the number of students undertaking experiential learning in the community	Document opportunities provided by the faculty for students to undertake

activities of teaching, learning and research		experiential learning in the community
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Goal 4: Students engaged with learning and University life

Indicator	Relevant Institutional Targets	Mandatory Faculty Targets 2008-09
Student satisfaction with UOW	Higher retention levels	Same as institutional target
	Higher overall satisfaction levels (CEQ, SEQ)	Same as institutional target
Prospective student perception of UOW	Maintain share of school leaver first preferences in line with UOW strategies	Same as institutional target

Goal 5: A university of international outlook and achievement

Indicator	Relevant Institutional Targets	Mandatory Faculty Targets 2008-09
International student engagement with student experience	Comparable rate of positive feedback to overall satisfaction questions on SEQ and CEQ compared to domestic students	Same as institutional target

Goal 6: Versatile, skilled and committed staff

Indicator	Relevant Institutional Targets	Mandatory Faculty Targets 2008-09
Attraction and retention of staff aligned to strategic directions	An average of two applicants deemed appointable to 80% of advertised academic positions and general staff positions at level 6/7 and above Less than 8% voluntary employee-initiated turnover for all positions Less than 6% voluntary employee-initiated turnover for key staff positions	[Mandatory faculty targets have not been set. Faculties to develop their own targets as appropriate in consultation with the Managers of PODS and Recruitment]
Quality of staff and staff development	Internal applicants to comprise 25-33% of deemed appointable list for competitively advertised positions	[As above]
	35% of senior roles held by women	[Faculty targets to be set in consultation with Director EED]
	70% favourable (above "satisfactory") response rate under "learning and development dimension" in biennial UOW Workforce Survey	Same as institutional target
Staff well-being	75% favourable response in UOW Workforce Survey under "organisational commitment"	Same as institutional target
	Lost Time Injury Frequency and Average Time Lost Rates below 1.0	Increase in number of hazards reported Decrease in amount of lost time for all claims Delay in reporting incidents less than 2 days Decrease in number of

		manual handling incidents involving lost time [Another target to be chosen by faculty – see Guide to Faculty Planning]
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Goal 7: Business capacity to advance achievement of our Vision

Indicator	Relevant Institutional Targets	Faculty Targets 2008-09
Domestic and international recruitment	Achievement of domestic and international onshore recruitment targets	[Faculty targets to be set in consultation with DVCO and DVCA&]
Proficient management of UOW IT assets and infrastructure	All faculties and units running on the centrally managed UOW Standard Operating Environment by 2009	Same as institutional target