

Faculty Review and Planning Report 2007

Faculty of Informatics

30 August 2007

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NOTES:

1. When completing this Report, refer to the following documents included in the accompanying Planning and Review Information Package:
 - Planning Context (Appendix A)
 - Essential Guide to Faculty Planning
 - Guide to risk management
 - Data Collection
 - Any additional faculty-specific data
2. This Report will provide essential information for:
 - budget discussions;
 - institutional planning reviews in core areas of activity; and
 - the 2007 University Annual Report to Parliament.

Part 1 Faculty Planning Context

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 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; 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, Energetech Australia, Hawker de Havilland, Freescale Semiconductors, Optiver, Motorola, Telstra, BHP Billiton, Boeing, Apple and Sun Microsystems.

The Faculty also houses numerous research centres, including the Telecommunications and Information Technology Research Institute (TITR), 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).

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 Faculty supports strong research links with over 30 leading international institutions, including Huazhong University of Science and Technology (China), Tsinghua University, Shanghai Jiaotong University, Royal Holloway (University of London), Manchester University, University of Florida, University of Columbia, Institute for Infocom Research (Singapore) and Tokyo Institute of Technology. The Faculty also has off-shore collaborations with key institutions in the region including Singapore Institute of Management (SIM); 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 (include key top level priorities for 2008)

Identify priorities for 2008-2010 under the Core Areas of:

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

Essential references:

- *UOW Planning Context (Appendix A)*
- *UOW Objectives (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. Continue with Quality101 initiative to further improve retention/pass rates.

Research:

- **Priority:** Continue to increase the Faculty's research capacity and strength through staff development and recruitment to maximise its national standing within the RQF 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? <i>(Brief statement only)</i>
The decline in domestic undergraduate enrolment numbers.	5	Domestic marketing campaign targeted at: increasing UAC first preferences, promoting Early Entry and Deans Scholars programs. Increased visits to High Schools by academics.

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.
Changes to the National Code and new immigration rules are likely to have a negative impact on international student numbers.	4	Inclusion of internships and other introductory work training components in degrees to aid students seeking skilled migration.
RQF rankings.	3	Important to optimise Faculty response to RQF to ensure highest possible ranking. Associate Dean (Research) dedicating significant time and effort to coordinate the Faculty response.

*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 Objectives

Internationalisation

- Support the diversification of the student profile

Student Equity

- Improve access ... among student equity groups at UOW

Business/Planning

- Develop and diversify funding sources to secure and advance the University's position in the sector
- Refine student recruitment strategies

2.1.1 Review

2006 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.

Objective: Attract and retain undergraduate and postgraduate students, both domestically and internationally.

- SECTE:
 - new dynamic School website framework and server development complete and requiring Academic input
 - established an informal marketing sub-committee
 - in conjunction with UniAdvice, academic visit to High School organised
 - advertisement for all courses placed in international magazine and on new website, and for MEngStud in *Engineers Australia Course Publication*

- two successful Guides in Engineering and Science events held, partially funded by Community Grant
- Faculty marketing activities currently focused on attending identified Careers Markets and on supporting and growing the Enrichment Program
- New booklet developed and printed *Focus on Informatics* for career market distribution, Discovery Day database mailout, and to mail out to Schools
- The Enrichment Program now has a structure and process including online registrations through a dedicated web site, data collation and reporting, and dedicated administrative resources
- Saturday Computing School now finished and Saturday Maths School commencing for the first time
- Faculty supported the University-wide Early Entry advertising ½ page for four weeks in St George/Sutherland Shire Leader.
- Additional marketing initiative launched:
 - twice direct mailing students with an Informatics course as a preference (1 to 4) extending the Early Entry Program registration timeframe to one week prior to the commencement of the HSC
 - above resulted in achieving the highest number of Early Entry registrations since the commencement of data tracking in 2003
- October HSC preferences 18% higher than same time last year

Objective: *Diversify International onshore students by country, levels and programs.*

- Due to 30% decrease in recruitment from the China market, objectives refocused to:
 - increase Faculty promotional/marketing activities with major agents
 - increase Faculty profile with twinning partners to ramp up articulation from Tainjin, Zhengzhou and Wuhan
 - Dean and Senior staff visiting partners in China during October with follow-up visits to occur in November and December
- Significant consolidation achieved with Chu Hai College in China resulting in more nuanced articulation arrangements being developed
- Ramping up Chu Hai interaction with less focus being placed on KHUST given their relative non-success in recruitment terms; recent visit by SITACS' Head ensured greater articulation opportunities
- Developing action plan for further collaboration with Chu Hai College
- Will disengage from KHUST and work to identify a partner for both onshore and offshore recruitment
- Discussions and meetings held with Singapore Polytechnic to gain market intelligence on Singaporean student course preferences as well as subject-development advice for new BComputer Science major, *Multimedia and Games Development*
- Research seminars scheduled to be delivered at Chulalongkorn University in Thailand; Prof P Ogunbona on editorial board of Chulalongkorn Computer Science journals
- Seminars presented at ICI in Jakarta (Indonesia) receiving press coverage and local industry and government exposure; preliminary discussions with University Binus Nusantara resulting in a senior delegation scheduled to visit in July

- Key academic staff with strong cross-cultural/student interaction skills identified and implemented for soft marketing campaigns internationally
- Newly formed Transnational Program Unit has seen Faculty International Manager relocate to head this Unit, and recruitment process recently secured a replacement to commence employment towards the end of November.

[Extracted from November 2006 Faculty Review Report by Strategic Planning and Quality Office]

2007 Update

Note: This area is provided for faculties to list key outcomes for 2007 to inform the development of faculty strategies and objectives below.

Recruitment - domestic

- Marketing plan developed and strategies being implemented, including revamped careers market flyers, poster of business cards of graduates and advertising in Good Universities Guide.
- School specific brochures developed, targeting HSC students.
- Marketing and High School Liaison Committee (SM&HSLC) formed in SECTE
- Deans Scholars approved by Academic Senate
- SISAT has completed an extensive review of u/g and p/g offerings and presented report to FEC.
- Need for BIS degree confirmed and new majors in BIST developed
- Discussions held at SM&HSLC regarding options for high school competition in 2007 and a community engagement grant proposal submitted to source funding
- Faculty sourcing additional scholarships and internships with strategic partners and organisations (eg Accenture).
- Faculty representatives attended careers markets in the Illawarra, Sutherland, Kogarah, Forbes, Dubbo, Bathurst, Smiths Hill, Warilla and Campbelltown and will be attending further markets in Canberra in August.
- Faculty representatives attended Year 10 Information evenings held in Sutherland and at UOW.
- Faculty representatives attended Year 12 Information evening held on 3 July for students interested in Engineering, Science and Informatics careers.
- Course offerings for 2008 being finalised; some degrees deleted and new courses in the process of approval

Recruitment – international

- Brochures developed for India and China road shows and circulated to key agents and off-shore partners.
- Multilingual web pages complete and have gone live (Faculty of Informatics first UOW faculty to use multilingual web pages)
- Dean and other UOW staff visited offshore partner Universities in October 2006, January 2007 and February 2007. Currently 2 students are studying onshore from Zhengzhou University and projections are for another 12 from Zhengzhou and 8 from Tianjin University by 2008.

- Dean, Transnational Program Director and International Officer visited Binus Nusantara in Jakarta in March 2007, possibility of a twinning arrangement starting Sep 2007.
- SIM to include Multimedia and Gaming major from Oct 2007 in Singapore.
- Discussions with Temasek Polytechnic have advanced to the point where an agreement will be put in place for collaboration and student articulation. Further, the Faculty is exploring joint opportunities for expansion into Vietnam.
- 20 additional students projected for 2008 from Zhengzhou and Tianjin Universities
- Offshore programs continue to perform well; SIM program doing very well with enrolments increasing; the departure of the UNSW site in Singapore could have positive impact on enrolments in Informatics programs at SIM.

Access by equity groups

- New SISAT degrees focusing on business problems and solutions, rather than just technology solutions, making them more attractive to females
- 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
- 45% of new students in BMath courses are female.
- Equity projects being developed, specifically a mentoring training program for students having difficulty with their studies and a support network for women in Informatics.

2.1.2 Faculty Strategies addressing 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 <i>(See above for UOW Objectives)</i>	Faculty Strategies <i>(Revise from previous plan as necessary)</i>	Targeted Outcomes <i>(Include key milestones/ targets)</i>
Recruitment - domestic	<ol style="list-style-type: none"> 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. Establish a new governance structure for the marketing of SECTE and its courses by: <ol style="list-style-type: none"> a) establishing a new committee called Marketing and High Schools Liaison Committee b) establishing specific and focused portfolios for more involvement in different aspects of marketing c) initiating a competition for High School years 9 and 10 as an attraction to the field of Electrical Engineering d) establishing new high-value and work-integrated scholarships to attract high-caliber students to SECTE 4. Introduce a new governance structure in SECTE to support students and closely 	<ol style="list-style-type: none"> 1. Increase HSC first preferences by 6% 2. Marketing committees set up in each School 3. <ol style="list-style-type: none"> a) Committee established and staff involved and focused on marketing b) coordinators have been appointed to drive different aspects of the marketing in the School c) Introduction, and degree of success, of High Schools' competition. d) Establishment of at least five (5) work-integrated scholarships. 4. Academically at-risk students identified early with remedial actions taken.

	<p>monitor progress by establishing new academic coordination portfolios within the School</p> <p>5. Other strategies include:</p> <ul style="list-style-type: none"> a) Developing a Dean's Scholars Program b) Restructure the BIST course c) Enhance the effectiveness and quality of School websites d) Review and broaden u/g and p/g offerings in new School (SISAT) e) Exploring delivery of p/g coursework subjects as short courses 	<p>5. a) Dean's Scholars Program developed for delivery in 2008</p> <p>b) Revised BIST course offered in 2008</p> <p>c) School websites enhanced through CMS migration by end June 2007</p> <p>d) Review of SISAT offerings completed</p> <p>e) Subject based p/g short courses developed</p>
Recruitment - international	<ol style="list-style-type: none"> 1. Produce marketing materials for Planet India Road show and promoting Faculty in targeted Indian cities with greatest potential for IT students 2. Attend Beijing CIEET road show and conduct agent training 3. Translate targeted marketing materials into Mandarin and development and launch of multilingual web pages 4. Consolidate high level offshore partnerships in China 5. Develop strategies for expansion into Vietnam and South Korea 	<ol style="list-style-type: none"> 1. Double number of Indian students from 2006 2. Increase Chinese onshore student numbers by 8% 3. Brochures translated in time for CIEET road show and four Mandarin web pages implemented at CMS go-live date 4. Convert 29 transnational offshore students to feed onshore 5. Strategies developed
Access by equity groups	<ul style="list-style-type: none"> ▪ In non-traditional areas, increase female students by: <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 	<ul style="list-style-type: none"> ▪ Increased female enrolment over 2006 figures

2.1.3 Additional Faculty Objectives

Faculty Objective	Faculty Strategies <i>(Revise from previous plan as necessary)</i>	Targeted Outcomes
Attract and retain undergraduate and postgraduate students, both domestically and internationally	<ul style="list-style-type: none"> ▪ Increase quality of postgraduate supervision in SCSSE 	<ul style="list-style-type: none"> ▪ Introduction of <i>Research Methods</i> (IACT940) as compulsory subject for MCompSc(Research) and PhD Students

Table 1 Student Profile as a % of Total Faculty Load

Percentages are based on current data and will be updated by Strategic Planning Services after Table 2 is completed.

Informatics	2000 Spr	2001 Spr	2002 Spr	2003 Spr	2004 Spr	2005 Spr	2006 Spr	2007	2008	2009
Domestic	67%	59%	51%	49%	48%	47%	48%	46%	44%	41%
International	33%	41%	49%	51%	52%	53%	52%	54%	56%	59%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Domestic:										
Undergraduate	93%	92%	90%	90%	89%	89%	89%	90%	91%	91%
Research	5%	5%	7%	7%	8%	9%	9%	9%	9%	8%
Coursework HECS	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%
Coursework Full-Fee	1%	2%	2%	2%	2%	2%	2%	1%	1%	1%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
International On-shore										
Undergraduate	0%	40%	48%	52%	47%	44%	42%	42%	42%	42%
Research	0%	6%	3%	4%	4%	6%	7%	7%	7%	7%
Coursework	0%	55%	49%	44%	49%	50%	51%	51%	51%	51%
TOTAL	na	100%	100%	100%	100%	100%	100%	100%	100%	100%
International Off-shore										
Undergraduate	0%	95%	85%	82%	93%	97%	100%	100%	100%	100%
Research	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Coursework	0%	5%	15%	18%	7%	3%	0%	0%	0%	0%
TOTAL	na	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 2 Student Profile in Terms of Faculty EFTSU

Update the non commonwealth supported (fee paying domestic and international) and research figures post 2007 (shaded boxes).

Informatics	2000 Spr	2001 Spr	2002 Spr	2003 Spr	2004 Spr	2005 Spr	2006 Spr	2007	2008	2009
Domestic	1061	1187	1293	1248	1162	1076	1013	969	936	913
International	519	818	1262	1315	1259	1201	1091	1128	1202	1305
TOTAL	1580	2005	2555	2563	2422	2276	2104	2098	2138	2218
Domestic										
Undergraduate	989	1088	1165	1127	1039	958	905	876	849	831
Research	51	58	89	92	99	95	92	85	80	75
Coursework HECS	12	12	11	5	3	2	1	0	0	0
Coursework Full-Fee	9	29	28	24	22	21	16	8	7	6
TOTAL	1061	1187	1293	1248	1162	1076	1013	969	936	913
International On-shore										
Undergraduate	0	237	401	413	389	345	257	255	255	255
Research	0	33	28	28	31	43	44	44	43	42
Coursework	0	330	414	348	401	390	317	315	315	315
TOTAL	na	600	843	789	821	777	618	614	613	612
International Off-shore										
Undergraduate	0	207	354	432	409	412	473	514	589	692
Research	0	0	0	1	1	1	0	0	0	0
Coursework	0	11	64	93	29	11	0	0	0	0
TOTAL	na	218	419	526	438	424	473	514	589	692

2.2 Learning and Teaching

UOW Strategic Objectives

Learning & Teaching

- Cultivate within our students the attributes of a Wollongong Graduate
- Support student learning
- Offer quality teaching programs
- Support quality teaching and professionalism

Student Experience

- Provide policies, services and facilities that guide and encourage all students to participate and succeed in the university experience
- Facilitate the transition from the student experience to graduate life and career

Student Equity

- Improve access, participation, retention and completion rates among student equity groups at UOW

Internationalisation

- Identify and develop key international alliances
- Prepare students for roles in an international multicultural context
- Enhance cultural sensitivity and understanding among staff and students
- Equip international students with the skills and knowledge to engage fully in the UOW student experience
- Enhance the University's capacity to compete in the international market

2.2.1 Review

2006 in Review

Note: Summary of key outcomes, including key achievements, milestones, awards, challenges and constraints for the reporting areas identified in 2.2.2 below.

Objective: Provide an effective educational experience for all our students that will produce quality graduates.

- **QUALITY101** project working to developed a program of changes with the activities in Maths as an example
- Teaching and Learning Fund application submitted to release SMAS academic to initiate follow-up evaluations of subject improvements and to identify "second steps" successful
- Improvements effected in three subjects so far:
 - STAT131 – change of assessment (Autumn) and will adopt in Spring the lab tests developed during Autumn for CSCI114
 - CSCI114 – continued lab development and assessment modifications
 - MATH141 – developed and trialled new video learning resources during Autumn Session which were also adopted for MATH161 in Spring
- Follow up evaluations of five subjects (STAT131, MATH141, CSCI114, CSCI124 and CSCI103) conducted with results as follows:
 - Failure rate for CSCI114 fell from 28–35% to 22% for the Autumn session
 - STAT131 changes led to a doubling of HD and D grades but only a slight drop in failure rate
 - MATH141 students, who used resources developed as identified above, improved their grades from Test 1 to Test 2, and maintained the increase in the Mid-term test (approx 12% improvement); Resources now being developed for rest of MATH141 and hence for major assessment final exam
 - Review held with lecturers of CSCI103, CSCI114 and CSCI124 to further explore transitions between subjects; data is currently being collected to examine this aspect and the unsuccessful ESDF

application on increasing practice through games will be further developed for resubmission in December

- Three ESDF applications completed and lodged: two unsuccessful, one successful (*Summertime Math*) with DVD resources currently under development for trial in MATH151 during Summer Session.
- Carrick Fellowship application submitted but unsuccessful
- Expression of Interest for CASR (DEST Collaboration and Structural Reform) funding submitted to complete larger scale project, *Return to Mathematics*
- Working with Science Faculty to develop resources for Maths in Science which, in part, prompted the University-wide approach to the Maths Skills Development
- In part as a result of above initiatives, Dr A Porter asked to chair an UEC working party to look at the development of Maths Skills across campus and has met with DVC (Academic) which resulted in a request for Dr Porter to prepare a University-wide submission for the development of Maths and Statistics skills which is currently under development
- Under Faculty Service Agreement with CEDIR:
 - newsletter developed
 - video clips of Science and Engineering problems, student experience and Maths of 21st Century developed
- FEC formed Tertiary Literacies Integration Working Party (TLIWP), to investigate and report on language issues across the Faculty; now also developed a more sophisticated 'map' of various generic and professional skills required and actively developed across the various programs in the Faculty, to facilitate better needs assessment and strategic planning of integration. This working party will meet mid November to plan for 2007 integration with the most urgent concerns receiving priority attention, eg INFO202 u/g project subjects involving various reports and literature reviews.
 - Current integrated academic literacy teaching in:
 - ECTE250/INFO202: continuing collaborative teaching with Learning Development
 - ECTE955: series of tutorials/workshops on lab report writing, literature reviews, avoiding plagiarism, and effective oral presentation
 - Generic academic literacy resource website established to consolidate and share existing resources; data to be uploaded to site for further discussion and development through December with a view to integration in 2007
 - Integrated various strategies to support academic literacy development within ECTE171, including early assessment of writing, lecture and follow-up seminars, and still developing marking routines and guide for assessors
 - Actively reviewing language development needs of ECTE250/INFO202 and reporting to TLIWP
 - Separated international PG IACT201/MS9201/ITCS908 students and formed into single tutorial group receiving two intensive workshops on written assignment tasks which delivered significantly positive results
 - Report-writing workshop and plagiarism-avoidance workshop integrated into ECTE957

- Other initiatives:
 - SITACS invited 71 students who failed two or more subjects in Autumn session to a Student Forum where attending students were offered mentoring assistance but uptake was poor; however, attending students were offered the opportunity of an appointment with the Head of School.
 - SITACS' comparative data of past three sessions indicated a drop from 6.15% to 5.4% of students failing two or more subjects.
 - Following data collection at end of Spring 2006, SITACS students will be invited to a forum in Autumn 2007.

Objective: *Review course and subject offerings in line with the University Quality Review Framework with a clear focus on key national and (where appropriate) international industry and social sector needs.*

- SITACS first year subjects now have structured labs
- Internal audit conducted of SITACS subject outlines with adjustments made to streamline assessment procedures
- SECTE postgraduate review now complete resulting in a new degree structure for the MEngStud to be introduced in 2007, i.e. offering three more focused and industry-relevant majors and two duration options (48-crp single major and 72-crp double major) providing more flexibility, and approved. This KPI now achieved for SECTE.
- New international marketing brochures under current development for above new course structure, including a Chinese language version
- SECTE and SITACS holding discussions on software engineering
- Benchmarking being undertaken of SECTE Masters courses against major Australian competitor offerings relative to duration, subject offerings, industry input and course names
- SECTE students now provided with MATH010 *Enabling Maths* realising good results for Autumn session
- Additional tutorials, including PASS tutorials, used in MATH161 for Enabling Students (from MATH010) in Spring Session with results not yet known. SMAS committed to continuing to offer Enabling Maths in 2007
- SMAS proposal formulated for immediate changes to MMathFin (first year) for implementation in 2007 which were not fast-tracked. Additional work is required for the proposal to be submitted again in 2007.
- SMAS commenced process of degree accreditation with the Australian Mathematical Society, Statistical Society, FINSIA, ASIC and the Actuarial Institute, to be continued into 2008
- Discussions re connections between MATH121 and CSCI103 in a *Critical Cooperation Project* in process
- Access Grid Room, funded by Australian Mathematics Society Institute, now operational with joint Honours subject being run with two other universities. Also collaborating with USyd on a DEST CASR grant to develop Grid Room technology and expertise in Honours mathematics teaching.
- FEC developed schedule of course reviews by School
- BIST-review process progressing with Working Party having met several times, and the Committee scheduled to meet in December.

- Session reviews of subject delivery process completed Autumn 2006 with results entered into database for above review

Objective: *Develop Dean's Scholars program across Faculty courses*

- Proposal for Dean's Scholars program developed, approved by the Faculty Executive Committee and Faculty Committee is currently scheduled for a 2007 implementation

Objective: *Consolidate all offshore partnerships*

- Developing strategic government and industry linkages and contacts as follows:
 - formal relationship currently being developed with the Singaporean Infocomm authority as well as the Singapore Computer Society
 - key industry players identified and dialogue commenced in China, Malaysia and Hong Kong
- Faculty Alumni successfully activated in Malaysia and Singapore with major functions being held in both locations during February
- Hong Kong Alumni activation in progress with event rescheduled to coordinate with 2007 ABRS Graduation ceremony.

Objective: *Review teaching allocation*

- SITACS formed committee to review teaching allocation and subject delivery which did not reach a conclusion; new School structure in 2007 will inform the progress of this objective
- Many SMAS subjects now team-taught, including by an external expert in STAT304

Objective: *Further enhancing teaching quality (new objective and only for FEC)*

- Five Quality Teaching and Learning grant applications submitted – two successful
- Two ESDF grant applications submitted – both unsuccessful
- Two Carrick Institute competitive grants in priority area categories applications submitted – both unsuccessful, but additional grant received under the Discipline-based Initiative for the Faculty to lead a collaborative team from QUT, Monash and UTS.

From Student Equity section

Objective: *Improve access, participation, retention and completion rates among student equity groups at the University of Wollongong*

- SECTE:
 - Created first-year scholarships for females in non-traditional areas to be advertised for students commencing in 2007
 - SECTE held lunch for female students, HDR students through to first-year graduates and staff to encourage networking and demonstrate support for female students
 - SECTE joined with Faculty of Engineering in developing a *Guides in Engineering and Science Saturday (GESS)* event which resulted in 35 Guides and their leaders from Illawarra and Southern Sydney taking part in the two events held so far.
 - SECTE female staff established a new 'Females in Engineering' network

- Enrichment Program and Saturday Computing School seeing good female participation rates; attendees across the 12 weeks of the program totalled 1099, averaging 92 per session
- Female intake into Maths-related degrees increased to 36%
- Half of year 12 students attending Maths information evening female.

[Extracted from November 2006 Faculty Review Report by Strategic Planning and Quality Office]

2007 Update

Note: This area is provided for faculties to list key outcomes for 2007 to inform the development of faculty strategies and objectives below.

Development of graduate qualities

- SISAT currently engaged in developing graduate qualities and mapping to their degrees
- New FEC working party formed to consider Graduate Qualities and how they might be mapped to subjects and degrees.

Quality teaching programs including course development and review

- Sub-committee of the SECTE Education Committee created to review MIT
- Postgraduate coursework students invited to meeting to share concerns and views on degree
- SECTE Education Committee has programmed a series of activities to address student satisfaction issues.
- SECTE Postgraduate Studies Committee has taken steps to encourage social interaction and plan a number of forums.
- Process in place to review subject delivery and low student satisfaction.
- SCS&SE working parties established to implement rationalisation of u/g and p/g subjects.
- Software Engineering working party formed and benchmarking underway
- SISAT has identified a number of subjects that may no longer be appropriate or are redundant and have removed them from the new degree structures.
- SMAS teaching students at the Loftus Education Centre via new video conferencing technology.
- Deans Scholars Programs approved by Academic Senate.

Student learning experience

- SCS&SE has held two meetings with 'at risk' students, focussing on 'forced offers' and students who failed more than one subject in Spring session 2006
- Student 'at risk' database constantly being updated.
- SMAS working party formed to investigate issues

Student equity initiatives

- New SISAT degrees focusing on business problems and solutions, rather than just technology solutions, making them more attractive to females

- 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
- 45% of new students in BMath courses are female

Support for quality teaching

- Katina Michael awarded a CEDIR fellowship
- Maureen Morris awarded the Octal Sessional Tutor/Demonstrator Award
- Annette Worthy awarded an Octal Faculty Award (only three Faculty Awards were presented across the University)

2.2.2 Faculty Strategies addressing UOW Objectives

Reporting Areas <i>(See above for UOW Objectives)</i>	Faculty Strategies <i>(Revise from previous plan as necessary)</i>	Targeted Outcomes <i>(Include key milestones/targets)</i>
Development of graduate qualities	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. Review completed 2. Document QUALITY101 process reviewed and applied to subjects with high failure rates and low student satisfaction scores with follow-up evaluations completed 3. Course subjects for integration identified, implementation plan and review of same completed
Quality teaching programs including course development and review <i>(Note: Attach course review schedule)</i>	<ol style="list-style-type: none"> 1. Review structure and effectiveness of SECTE p/g courses by: <ul style="list-style-type: none"> • internally reviewing the structure and content of the MIT • reviewing the effectiveness of the new MEngStudies introduced in 2006 2. Review subject delivery in each session and address abnormalities in student achievement and satisfaction by: <ul style="list-style-type: none"> • 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: <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 	<ol style="list-style-type: none"> 1. Number of enquiries for, and enrolments into, SECTE p/g coursework courses 2. Number of subjects reviewed and improvement in SECTE student satisfaction 3. Conduct review and generate report by May 2007 in readiness for 2008 introduction 4. Market survey conducted and team formed to champion the Software Engineering curriculum 5. Courses reviewed and improved according to delineated strategies 6. Determine a review program which includes all courses and parties external to Faculty to conduct audit of assessment procedures 7. Oversight course and subject reviews

	<ol style="list-style-type: none"> 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 	<p>conducted in accordance with Plan</p> <ol style="list-style-type: none"> 8. Framework developed and approved for implementation by early 2008
Student learning experience	<ol style="list-style-type: none"> 1. Reinstate SCSSE mentoring scheme for "at risk" first-year undergraduate students 2. Review the transition in and through first year Mathematics subjects by: <ul style="list-style-type: none"> • 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 	<ol style="list-style-type: none"> 1. Database of "at risk" students developed and group mentoring established 2. Procedures and strategies developed and reviews conducted 3. System in place for Spring 2007
Student equity initiatives <i>(Including for equity & international students)</i>	<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 enrolment over 2006 figure • Increase female students in non-traditional areas through exposure via the Enrichment Program 2007 	<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. • Enrolments for 2007 show 45% of new students in BMath, BMath(Adv) and BMathFin are female • Approximately 10% of the participants in the Enrichment Program are female.
Support for quality teaching	<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 	<ul style="list-style-type: none"> ▪ Two successful ESDF (or similar) applications per year and success in Carrick Institute and Teaching and Learning Grants
International linkages and activities		
Strategic offshore teaching programs	<ul style="list-style-type: none"> ▪ Evaluate offering proposed Dean's Scholars Program to offshore courses 	<ul style="list-style-type: none"> ▪ Recommendation re offering for offshore courses submitted to Faculty
Study abroad/ student exchange linkages	<ul style="list-style-type: none"> ▪ Explore new study abroad mechanisms with Manager, International Relations that might be more attractive to our students. 	<ul style="list-style-type: none"> ▪ Increased participation by students in study abroad.
Other <i>(E.g. development of International degrees)</i>		

2.2.3 Additional Faculty Objectives

Faculty Objective	Faculty Strategies (Revise from previous plan as necessary)	Targeted Outcomes
Seek accreditation of SMAS courses where appropriate	<ol style="list-style-type: none"> Determine appropriate financial bodies to give accreditation for the Finance courses Investigate articulation into p/g Actuarial courses offered at other Universities 	<ol style="list-style-type: none"> Complete accreditation of all degrees with AustMS and StatSocAust and with identified Finance accreditation body Articulation potential identified

2.3 Research

UOW Strategic Objectives

Research

- Increase the level of externally-funded research to enhance the capacity and diversity of our research effort
- Improve the quality of higher degree research student scholarship and training by aligning them with strategic research directions
- Improve the quality, impact and recognition of outcomes of our research effort
- Encourage linkages and commercialisation opportunities between researchers, industry and other partners
- Identify, reward and promote research activities that enhance the international reputation of the University
- Create a strong culture of support for research excellence

Internationalisation

- Identify and develop key international alliances
- Prepare students for roles in an international multicultural context
- Enhance the University's capacity to compete in the international market

Business/Planning

- Develop and diversify funding sources to secure and advance the University's position in the sector

2.3.1 Review

2006 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.

Objective: SITACS to attract high calibre Postgraduate students and improve their research productivity, and performance and completion rates

- SITACS' new HDR Co-ordinator liaised with the Director of the Research Student Centre and determined that the CDU-offered course entitled *Supervising HDR Students – Policies and Procedures* appropriate for all staff supervising HRD students

Objective: Ensure that 85% of Academic staff are research active

- RIS system to be deployed University wide reports on publications; SITACS current reviewing baseline data to determine fields to be constructed in SIMS (SITACS Information Management System) database
- SITACS runs School Research Colloquium every week including with occasional guest speakers from other institutions

Objective: Increase dollar-level of competitive funding from ARC, CRC, other funding agencies and industry sources

- Faculty review process conducted for 2007 ARC Discovery Grants
- 25 ARC Discovery grant applications submitted, with three being successful totalling \$1.7m
- Successful SMAS staff mentoring program instituted and development of joint applications with other staff members also instituted
- All new SMAS staff applied for University Small Grants resulting in more applications lodged in 2006 than in previous years with all receiving review and discussion prior to submission
- Workshop for unsuccessful ARC Linkage applications held

Objective: *SMAS to have a strong international reputation for research*

- Four new PhD students enrolled
- Active group in Nanotechnology with PostDocs and visitors established and growing
- Statistics research students and visitors also growing
- Two new professors in Statistics acquired
- Collaborations in Statistics with Manchester, Southampton and ANU established and an application for a CASR grant pending

Objective: *Review SMAS research structure*

- Mathematics in Industry Study Group (MISG) planning progressing with:
 - Two SMAS staff appointed as directors
 - Funding of \$10,000 secured for 2007
 - Web site now live
 - Partners offering problems and support now identified
 - Problems scoped
- Access Grid room now operational (funded by AMSI)

Objective: *Produce a substantial amount of research of high quality and impact, thereby positioning the Faculty to thrive in the new Research Quality Framework being developed by the Federal Government*

- FIRDS grant awarded
- Publications increased by 14% over previous year

Objective: *Establish and/or improve relationship with six key domestic organisations*

- Meetings held in TITR to identify potential projects
- Statistical collaboration agreement signed with New Zealand Ministry of Health

Objective: *Develop another long-term research strength for the Faculty*

- Centre for Statistical and Survey Methodology designated as a new Research Strength

Objective: *Develop an effective Faculty-wide research management and funding plan in collaboration with URC*

- Research groups and funding processes finalised

Objective: *Strengthen incentives and resources for educational growth and development*

- Subscription to TenderSearch bulletin (covering Australia, New Zealand, Singapore and Hong Kong) for information on available tenders and research grants acquired with relevant opportunities circulated to staff members

[Extracted from November 2006 Faculty Review Report by Strategic Planning and Quality Office]

2007 Update

Note: *This area is provided for faculties to list key outcomes for 2007 to inform the development of faculty strategies and objectives below.*

Research income

- ARC Linkage Grant winners Song-Ping Zhu, David Steel and Ray Chambers
- Linkage Projects – successful Informatics applications accounted for 37.5% of UoW's first round funding.
- 35 Discovery grants have been submitted, all reviewed by senior staff within the Faculty before being submitted.
- Prof David Steel was recently successful at receiving a Collaboration and Structural Reform Grant for Applied Statistics Education and Research Collaboration. Worth \$940K, it involves collaboration with the University of Newcastle, UWS and University of New England.
- The Faculty continues to be heavily engaged in the CRC's for Smart Internet Technology and Desert Knowledge, both of which are funding major R&D projects in the Faculty.
- Willy Susilo, Jo Abrantes, George Zhou, Tianbing Xia and Aneesh Krishna were successful in receiving a \$10K Educational Strategic Development Fund (ESDF) grant.
- George Zhou received a Microsoft Grant for \$35K

Research student training

- 21 new HDR students enrolled in Autumn session 2007 (Faculty had highest HDR student load at UOW in 2006)
- Introduction of a Research Methods subject (IAC940) for all Master of Computer Science (Research) students, with plans to make it compulsory for PhD students as well.
- Research student load in SMAS has increased dramatically to 35.

Research quality and impact

- The Faculty is working with the Office of Research to develop measures of research quality and impact.
- Initial RQF groups have been identified
- The Centre for Statistical and Survey Methodology has been recognised as a research strength within the university
- Research Professors Wand and Raeburn both on IST's most highly cited list (ie two out of the three people at UOW on the list).
- New research staff have joined SMAS, including 2 professors and 3 other academic staff.
- Assoc Prof Tim Marchant appointed as chair of a DEST Endeavour Awards selection panel.

2.3.2 Faculty Strategies addressing UOW Objectives

Reporting Areas (See above for UOW Objectives)	Faculty Strategies (Revise from previous plan as necessary)	Targeted Outcomes (Include key milestones/targets)
Research income	<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 • senior staff assisting junior staff with developing competitive research grant proposals 	<ul style="list-style-type: none"> ▪ External funding increased over 2006
Research student training	<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 • rewarding high achievers and profiling them as role models 	<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
Research quality and impact	<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 • 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 	<ul style="list-style-type: none"> ▪ Proportion of publications and other research outputs that meet the RQF criteria ▪ Citation rates ▪ National/international recognition and awards
Partnerships and commercialisation	<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 • identifying key elements of a productive relationship for the Faculty and the identified partner 	<ol style="list-style-type: none"> 1. Participate in one ARC Centre of Excellence in 2007 2. Research outputs generated through international links over 2006
International linkages and reputation	<ol style="list-style-type: none"> 1. Develop and implement an R&D incubation commercialisation plan within the Innovation Campus 2. Have a strong international reputation for research through high level of activity on international bodies 	<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

2.3.3 Additional Faculty Objectives

Faculty Objective	Faculty Strategies (Revise from previous plan as necessary)	Targeted Outcomes
Research-only staff to be	<ul style="list-style-type: none"> ▪ Review opportunities for such teaching, such as research-only staff identified to thesis subject 	<ol style="list-style-type: none"> 1. Identify current member or research-only staff

strategically involved with honours teaching program	coordinator for inclusion into supervision list	teaching such programs: one year 2. Increase the identified number in 2007.
Ensure that 85% of Academic staff are research active	<ul style="list-style-type: none"> ▪ Clarify minimum requirements for "research active" status ▪ Ensure priority allocated in career development interview/plan. 	<ul style="list-style-type: none"> ▪ Metric set for research activity (using RQF) ▪ Percentile achieved: one year.
Establish criteria to ensure study leave is effective (ie undertaken as prescribed)	<ul style="list-style-type: none"> ▪ Improve study leave planning. 	<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.
Produce bi-annual Faculty Research Report	<ol style="list-style-type: none"> 1. Collating data on research activities 2. Compile and edit into report. 	<ol style="list-style-type: none"> 1. Data entered into RIS 2. Faculty Research Report produced in 2007
Leverage Faculty's data mining expertise to position the Faculty at the forefront of this emerging discipline	<ul style="list-style-type: none"> ▪ Conduct audit of Faculty's current expertise levels 	<ul style="list-style-type: none"> ▪ Audit complete
Review SMAS research structure	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. Structure determined and communicated to stakeholders 2. Have two top-ranked groups in 2007 3. Have 80% of staff involved in top-ranked groups in the subsequent RQF round

2.4 Community Engagement

UOW Strategic Objectives

Community Engagement

- *Promote the sharing of knowledge between the University and its communities*
- *Contribute to sustainable economic and environmental management*
- *Strengthen incentives and resources for educational growth and development*
- *Take an active role in community social and cultural development and well-being*

2.4.1 Review

2006 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.

Objective: *Quarterly Research Seminars and/or mini-workshops for local industry.*

- Ad-hoc workshops and presentations organised by various research groups and strengths; objective to be slated to Associate Dean (Research) to further progress

Objective: *Provide the ICT leadership focus in terms of the development of the Wollongong Innovation Campus (WIC).*

- Discussions with *Imprezzeo* progressing with significant venture capital interest
- One provisional patent lodged around *Imprezzeo*
- Another two provisional patents currently being managed
- Partner audit to be undertaken in the future

Objective: *Contribute to a sustainable economic and environmental management*

- *SECTE, SMAS, TITR:*
 - Remote individual computer wake-up applied on an individual unit basis for the server(s) systems and applicable only to computers that have the suitable configuration facility thereby effecting power savings
 - All new computers configures with stand-by and hibernate modes, including “stay off” after power fail
- *SITACS:*
 - All new SITACS labs (and other computers) are being set so they do not turn on automatically, again effecting power savings
 - Staff computer monitors turn off after 20mins and hard drives after two hours of inactivity

[Extracted from November 2006 Faculty Review Report by Strategic Planning and Quality Office]

2007 Update

Note: *This area is provided for faculties to list key outcomes for 2007 to inform the development of faculty strategies and objectives below.*

Interaction and knowledge exchange

- Daniel Saffioti awarded the Vice Chancellors award for Excellence in Community Engagement
- Katina Michael and Michael Michael presented their ‘Rise of Homo Electricus’ talk at the Uni in the brewery on 16 May
- Enrichment program being coordinated at a Faculty level and new marketing material developed. Registrations for Computing strand had to be closed due to unprecedented demand.
- Maths Teachers Day held on 26 June
- Successful Mathematics in Industry Study Group (MISG) meeting held in February 2007 with five industry parties participating.

2.4.2 Faculty Strategies addressing UOW Objectives

Reporting Areas (See above for UOW Objectives)	Faculty Strategies (Revise from previous plan as necessary)	Targeted Outcomes (Include key milestones/targets)
Interaction and knowledge exchange	<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 	<ul style="list-style-type: none"> Four events held during 2007
Reciprocal relationships		
Integration of community engagement in academic activities	<ul style="list-style-type: none"> Review and consolidate the Faculty Enrichment Program ensuring appropriate evaluation criteria implemented 	<ul style="list-style-type: none"> Program reviewed with mechanisms in place to conduct cost/benefit analysis
Student access		

2.4.3 Additional Faculty Objectives

Faculty Objective	Faculty Strategies (Revise from previous plan as necessary)	Targeted Outcomes

Part 3 Resources

3.1 Staff

UOW Strategic Objectives

Staff

- Strengthen recruitment and development strategies to ensure staff have the skills and attributes to help achieve the University's goals
- Provide a supportive equitable and inclusive staff work environment
- Support continuous professional and skills development for University staff
- Review and improve communication within the University
- Pursue an equity agenda with responsibility for outcomes at devolved levels

OH&S

- Facilitate continuous improvement in OH&S through the implementation of faculty OH&S targets* and associated strategies

*Targets relate to the OH&S Performance Measures and Targets Paper, approved by the Administrative Committee in November 2003, under Council delegation.)

3.1.1 Review

2006 in Review

Note: Summary of key outcomes, including key achievements, milestones, awards, challenges and constraints for the reporting areas identified in 3.1.2 below.

Objective: Monitor and develop new staff.

- SMAS have achieved a balanced staff workload through Workload agreements, new staff having at least one class at first year/service level

and at least one class at a higher level, new staff applying for a small ARC and/or Early Career Research Grant, and each new staff member being a joint supervisor of at least one higher degree student

- All new SMAS staff achieving good progress with ITT, have attended conferences and been involved in seminar organisation for the School
- Discussions held with senior staff to identify those seeking leadership roles, eg through MISC, SEC and research groups.

Objective: *Improve representation of academic women*

- *Women in Engineering* program reinvigorated in SECTE
- Female academic staff actively involved in high profile committee representative roles
- Dr Katina Michael appointed co-ordinator of R&D initiative on *IP Location Aware Services* (collaborative effort between *Andrew Corporation* and the Faculties of Informatics and Commerce)

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

- Faculty achieved 99% completion rate for EO Online (only Faculty to do so). This strategy is now complete.
- University now established Student Equity and Diversity Liaison Officer positions with Informatics sharing one Officer with the Engineering Faculty
- One subject currently being taught across the three Schools
- SECTE new staff assigned to research group with leader of group and Head of School acting as mentors
- SITACS provides mentoring by Head of School for all new staff within three months of appointment
- SITACS Head of School works with staff to complete probations process with assistance given to refining applications
- SMAS reviewed mentoring arrangements at the commencement of 2006
- All SMAS probation and promotion applications discussed with Head of School and submitted on time with submitted application successful
- Over 50% of SMAS subjects team-taught
- INFO411 team-taught with Faculty's other two Schools
- Entire Faculty attended *Chinese Culture and Language Workshop*

Objective: *Ensure work practices are non-discriminatory*

- Workloads working party formed to review and assess workload allocation and consistency across the Faculty's schools to be considered at both the Faculty and the EEO Office level
- New IS/IT School currently being formed with an external Change Manager sought to oversee and facilitate the process, and to address the concerns of IS staff related to the perception of a larger teaching load
- A commitment has been undertaken to continue and extend a number of current contract staff for Autumn session 2007

Objective: *Multi-skilling Faculty's Administrative staff*

- Regular combined Faculty Admin Staff meetings held on a quarterly basis to share information and strategies
- Staff member supported in secondment to another area with existing staff redeployed to now-vacant position undertaking new roles and development
- Faculty and SITACS Admin staff sharing responsibility for support the Enrichment Program process.

Objective: *Implement the OH&S Strategic Plan for Informatics*

- The University continues to encounter problems with the Cognos reporting tool, now not slated for implementation until some time in 2007
- WAC currently investigating acquiring limited data for benchmarking purposes from the SafetyNet reporting tool
- Audit inspection of Building 6 complete; continuing with audit inspections of Labs, teaching spaces and ultimately office space (*see also below*)

Objective: *Promote a safe and healthy work and student environment for all staff, students and visitors*

- SECTE established OH&S sub-committee which:
 - has met and has scheduled meetings bi-monthly
 - Drafted items for OH&S Checklist Addendum: *In-house Designed Student Projects and Equipment* including:
 - procedures
 - induction session
 - induction video
- workplace inspections in Building 6 complete, as per OH&S Strategic Plan, with results currently under consideration (*see also above objective*).

[Extracted from November 2006 Faculty Review Report by Strategic Planning and Quality Office]

2007 Update

Note: *This area is provided for faculties to list key outcomes for 2007 to inform the development of faculty strategies and objectives below.*

Training and career development

- High profile Honours courses being run using AGR in 2007
- Mathematics in Industry Study Group (MISG) 2007 successful with six companies and 120 delegates attending
- 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
- Prof Matthew Wand; inducted as a "Fellow" of the prestigious Institute of Mathematical Statistics.

- Dr Grant Cox, Dr Frithjof Dau, Dr James McCoy, Dr Son Lam Phung, Dr Mark Sifer and Dr Zhiquan Zhou were successful in their recent probation application
- Fazel Naghdy and Song-Ping Zhu promoted to professor
- Four staff members have recently joined SMAS from the University of Newcastle; Prof Iain Raeburn, who is on the ISL list of highly cited researchers, A/Prof David Pask, A/Prof Jacqui Rammage and Dr Aidan Sims. Until this year UoW had no staff listed on the highly cited lists and now have three, two of these in SMAS.

Employment equity and diversity

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

Occupational health and safety

- SECTE OH&S sub-committee established and operational. Inspections undertaken and reports lodged.

3.1.2 Faculty Strategies addressing UOW Objectives

Reporting Areas <i>(See above for UOW Objectives)</i>	Faculty Strategies <i>(Revise from previous plan as necessary)</i>	Targeted Outcomes <i>(Include key milestones/targets)</i>
Recruitment		
Training and career development	<ol style="list-style-type: none"> 1. Provide access to targeted development opportunities and/or bridging programs for EEO eligible staff 2. Leverage opportunities afforded by AMSI, ARG and MISG 	<ol style="list-style-type: none"> 1. Raise awareness as per participant evaluations: number of applicants taking up identified opportunities 2.a) Funding received from AMSI greater than subscription cost 2.b) Use AGR facilities to teach within UOW campuses and with national and international partners 2.c) Use MISG conferences to develop linkage partners and have UOW recognised as a strength in the application of Maths/Stats to industry
Employment equity and diversity	<ol style="list-style-type: none"> 1. Ensure work practices are non-discriminatory 2. Monitor and develop new staff 	<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
Occupational health and safety	<ul style="list-style-type: none"> ▪ Implement identified strategic KPIs and establish SECTE OH&S sub-committee to develop and review SECTE OH&S policies 	<ul style="list-style-type: none"> ▪ Increased hazard reporting by 50% over benchmark ▪ Raise awareness of prompt injuries reporting

		<ul style="list-style-type: none"> ▪ Hazard inspection audit complete ▪ SECTE sub-committee established and policies reviewed
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3.1.3 Additional Faculty Objectives

Faculty Objective	Faculty Strategies <i>(Revise from previous plan as necessary)</i>	Targeted Outcomes
Create a more inclusive and mentoring Faculty culture for equity group members	<ol style="list-style-type: none"> 1. In cooperation with CEDIR, develop best practice case studies for cultural inclusiveness with particular reference to work group 2. Develop appropriate mentoring linkages for new staff and for staff preparing for probation and promotion 	<ol style="list-style-type: none"> 1. Develop five case studies for CEDIR best practice website 2. Baseline established and improved percentage of successful probation and promotion outcomes
Improve staff morale in SCSSE	<ul style="list-style-type: none"> ▪ Increase public appreciation of efforts 	<ul style="list-style-type: none"> ▪ Improvement in morale
Form the new School of Information Systems and Technology comprising staff from Informatics and Commerce	<ol style="list-style-type: none"> 1. Develop a shared vision by: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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 	<ol style="list-style-type: none"> 1. An effectively-functioning new School working toward a clearly articulated vision 2. Cohesive new School located to identified site
Provide a pleasant working environment for SMAS staff	<ol style="list-style-type: none"> 1. Provide all staff with adequate physical facilities 2. Maintain current inclusive and collegial atmosphere 	<ol style="list-style-type: none"> 1. Enough space found to accommodate new staff without impacting on existing staff and adequate funding received to develop new space 2. Appropriate social activities held to welcome new staff and workload and work allocation procedures for administrative staff reviewed

3.2 Other Faculty Resources

List any resource implications for the faculty of strategies included in this Report. Consider, for example, space, equipment, information technology. Attach current Faculty IT Plan where appropriate.

- Space continues to be a pressure issue within the Faculty. A geographically-fragmented footprint across 11 different buildings exacerbates the Faculty's existing space pressures.

3.3 Resource Implications for Professional Units

List any resource implications of strategies included in this Report for Professional Units. Consider, for example, Library, ITS, Student Services, CEDIR, Research & Innovation Division, ARD, UniAdvice, Personnel.

Library

- Membership on Informatics' FEC Tertiary Literacies Integration Working Party

ITS

- As a result of the General Computer Controls Review, recently carried out by the Internal Auditor and Deloitte, a number of recommendations arose which will require closer organisational collaboration between the Faculty and ITS, particularly with regards to off-site backup systems and security measures.

Learning Development

- Membership on Informatics' FEC Tertiary Literacies Integration Working Party

CEDIR

- Assist in development of five 'best practice' Informatics case studies to post to CEDIR best practice website

UniAdvice

- Assist with Software Engineering market survey
- Assist with marketing of Early Entry

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 and will be incorporated into this template by the Strategic Planning and Quality Office.

UOW Planning Environment A Snapshot as at May 2007

1. UOW-in-Brief, May 2007

Campuses: Wollongong, Shoalhaven, Innovation Campus and Dubai

Education Centres: Batemans Bay, Bega, Loftus, Moss Vale and Sydney

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	7851.5	10596
Domestic Postgraduate Coursework	641.7	1422
Domestic Higher Degree Research	621.2	866
International Onshore	2040.4	3652
International Offshore ex Dubai	264.0	612
International Dubai	987.8	2231
Total	12406.6	19379

Staff	FTE
Academic	796.36
General	813.45
Total	1609.80

2. Strategic Plan 2008-10 – Advance Briefing

The main features of the draft Strategic Plan for the next triennium are provided below as reference points, noting that they are in development:

Draft UOW Strategic Priorities 2008-10

- Sustained national and international recognition for excellence and enterprise
- Academic integrity preserved as an integral part of the University culture
- A leading research performance sustained through ground-breaking discovery, collaborative networks, and commercialised outcomes
- A reputation for excellence in learning and teaching strengthened and sustained through innovation and quality student outcomes
- The UOW Student Experience differentiated as engaging, motivating, personalised, and internationally-oriented
- UOW students and graduates recognised, and preferred by employers, for their knowledge, skills and distinctive qualities
- The Innovation Campus positioned as a successful space for developing new ideas and applications through University-business partnerships
- UOW recognised as a pre-eminent provider of medical training for regional, rural and remote Australia
- Our connection to the community enhanced through mutually beneficial access, research projects, real-world student experience, environmental and cultural programs
- The principles of environmental sustainability promoted in policies and practice across all UOW locations
- High calibre staff equipped to achieve excellent outcomes to ensure the University's continued success
- Quality processes and professional business planning and practice embedded in all areas to maintain excellence and a competitive advantage

Draft 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. International Scene

- Climate Change: research, innovation and management issues
- China has embarked on largest education building program in history (with impact on recruitment of Chinese students to Australian universities)
- Entrepreneurial culture transforming the economies of India and China
- Globalisation of higher education – growth in transnational programs, multinational campuses, international private providers
- Implementation of Bologna Agreement and restructuring of European Union Higher Education framework¹
- Impact of International Rankings – Shanghai Jiao Tong, Times Higher Education

4. Key Aspects of the Australian Higher Education Scene 2007

- Australian Government's *national research priorities*:
 1. An Environmentally Sustainable Australia
 2. Promoting and Maintaining Good Health
 3. Frontier Technologies for Building and Transforming Australian Industries
 4. Safeguarding Australia
- *Carrick Institute and Learning & Teaching Fund* have an impact on both funding and reputation; they require a sustained high level of performance
- The *Research Quality Framework* implementation phase initiated: the federal government intends the RQF to "assess research against international benchmarks based on its quality and impact and will provide transparency about public investment in research."
- *Initiatives under 2007 Federal Budget*:
 - \$5 billion *Higher Education Endowment Fund* (HEEF) – the capital to be invested and the earnings available for distribution to universities each year to provide an annual source of funds for capital works and research facilities, distributed through a competitive process. (The HEEF will also encourage philanthropic investment in the higher education sector).
 - \$556.9 million over four years for the *Increasing University Funding* measure to simplify university funding structures and provide additional funding for key disciplines particularly in areas of skills need;

¹ To be implemented in 2010, the Bologna agreement creates a common model for Higher Education in Europe: a three or four-year first Bachelor degree, a second stage leading to a Masters degree, and a third stage leading to a Doctoral degree.

- \$211.2 million over four years for the *Allowing more Responsive Universities* - allowing universities to adjust student numbers and course mixes to respond to student demand and address skills needs;
 - \$208.6 million over four years to create the new *Diversity and Structural Adjustment Fund* to assist universities to diversify, specialise and provide learning and teaching enhancement projects that focus on local skills needs. Priority will be given to regional and smaller metropolitan universities which can demonstrate the greatest need for structural reform;
 - \$77 million over four years to help teacher education students gain more practical experience working in classrooms;
 - \$222 million to improve access to tertiary education for students by increasing the number of *Commonwealth Scholarships*; and extending eligibility: for Rent Assistance to Austudy recipients, for Youth Allowance and Austudy to students undertaking approved Masters by coursework.
- In election year, federal ALP Opposition announces major policy initiatives related to higher education - *New Directions for innovation, competitiveness and productivity* and *The Education Revolution*
 - Growth in private universities operating onshore
 - Launch of the Melbourne model²

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

- WorkChoices– AWAs, productivity requirements; ALP Opposition IR policies
- 70million “baby boomers” will leave the workforce in the next 15 years; only 35 million will replace them
- Impact of RQF on recruitment and retention of key research staff
- Aging research staff (with consequent need to foster careers of early researchers carefully)

7. Quality and Performance Demands

- Continuing increase in demands for reporting to Government.
- 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 of institutional outcomes. The UOW audit is expected to be held in 2010 or 2011.

² By 2015, the University of Melbourne aims to offer professional programs at graduate level, and more coherent general education at undergraduate level with fewer courses and subjects and a range of well-defined pathways into graduate study (undergraduate study may include a semester spent off campus or studying abroad, a research project or a community service project).

UOW Core Function Objectives and Performance Indicators

Institutional Performance Indicators relevant to faculty activities are listed below.

For each Performance Indicator marked with an asterisk, data has been provided in the central Data Collection to assist faculties to assess their performance against relevant University objectives.

Learning and Teaching

Strategic Objectives	Performance Indicators
1. Cultivate within our students the attributes of a Wollongong Graduate	<ul style="list-style-type: none"> ▪ Student participation in overseas study opportunities* ▪ Completion of International Minor strand* ▪ Information Literacy Participation* ▪ Subject Evaluation Survey outcomes*
2. Support student learning	<ul style="list-style-type: none"> ▪ Student satisfaction* ▪ Commencing and total student success and attrition (including equity groups)*
3. Offer quality teaching programs	<ul style="list-style-type: none"> ▪ Graduate employment rates* ▪ Further study after graduation* ▪ Outcomes of CEQ and Subject Evaluation Survey* ▪ Comparable student performance across all UOW teaching locations* ▪ Integration of online learning aspects in subjects* ▪ Student satisfaction with teaching resources
4. Support quality teaching and professionalism	<ul style="list-style-type: none"> ▪ Participation in or completion of Unit 1 of "Introduction to Tertiary Teaching" Program* ▪ Staff participation in teaching-related development* ▪ Outstanding Teaching Award applications* ▪ Applicants and recipients for external teaching awards

Research

Strategic Objectives	Performance Indicators
1. Increase the level of externally-funded research to enhance the capacity and diversity of our research effort	<ul style="list-style-type: none"> ▪ Level of research income ▪ Distribution of income across all DEST income categories ▪ Number of externally-funded research staff ▪ Income generated by new areas and initiatives
2. Improve the quality of higher degree research student scholarship and training by aligning them with strategic research directions.	<ul style="list-style-type: none"> ▪ HDR completion numbers ▪ HDR completion rates ▪ Average length of HDR candidature ▪ Proportion of HDR Students associated with research strengths ▪ Number of Thesis commendations ▪ National and international student awards ▪ Attendance at training courses by supervisors and students
3. Improve the quality, impact and recognition of outcomes of our research effort	<ul style="list-style-type: none"> ▪ Proportion of publications and outputs that meet discipline-specific criteria for highest quality and high impact ▪ Citation rates, where applicable ▪ Awards and national /international recognition of quality output ▪ Multidisciplinary publications and outputs that could be considered to meet standards of research excellence
4. Encourage linkages and commercialisation opportunities between researchers, industry and other partners	<ul style="list-style-type: none"> ▪ Number of "new partnership" grants ▪ Number of commercial partnerships established ▪ Number and value of ARC Linkage Grants ▪ Number of invention disclosures received ▪ Number of patents lodged ▪ Number and value of commercial research contracts ▪ CRC income ▪ Number of licenses and spin-out companies

5. Identify, reward and promote research activities that enhance the international reputation of the University	<ul style="list-style-type: none"> ▪ Number and value of ARC linkage international awards ▪ Number of international conferences held at UOW ▪ Invited keynote/plenaries at international conferences ▪ Number of staff involved in senior roles in international conferences ▪ Research income derived from international sources ▪ Numbers of distinguished visitors to UOW ▪ Number of collaborative activities with leading international universities, including those involving HDR students
6. Create a strong culture of support for research excellence	<ul style="list-style-type: none"> ▪ Number of staff with external funding recruited ▪ Number of and nature of external fellowships received ▪ Number of Fellowships and Memberships of Learned academies ▪ Number of grants awarded to early career researchers ▪ Number of professorial promotions

Internationalisation

Strategic Objectives	Performance Indicators
1. Identify and develop key international alliances	<ul style="list-style-type: none"> ▪ Active international agreements with targeted institutions ▪ Hosted international conferences ▪ ARC Linkage international awards ▪ Number of new or revised teaching programs developed and taught collaboratively with an international partner ▪ Number of DEST category one journal publications jointly developed with targeted institutions
2. Prepare students for roles in an international multicultural context	<ul style="list-style-type: none"> ▪ UOW student participation in overseas study opportunities* ▪ Completion of International Minor strand *
3. Enhance cultural sensitivity and understanding among staff and students	<ul style="list-style-type: none"> ▪ CEQ rating for "my university experience encouraged me to value perspectives other than my own"* ▪ International student satisfaction* ▪ Staff completion of cross-cultural development programs*
4. Support diversification of student profile	<ul style="list-style-type: none"> ▪ International student profile*
5. Equip international students with the skills and knowledge to engage fully in the UOW student experience	<ul style="list-style-type: none"> ▪ International student satisfaction* ▪ International student success and attrition*
6. Enhance the University's capacity to compete in the international market	<ul style="list-style-type: none"> ▪ International students coming to Australia, enrolling at UOW

Student Equity

Strategic Objective	Performance Indicators
Improve access, participation, retention and completion rates among student equity groups at the University of Wollongong*	<ul style="list-style-type: none"> ▪ Access rates for equity groups ▪ Representation of students from equity groups (i.e. participation rates)* ▪ Completion rates for equity and international groups* ▪ Success indicator: proportion of students from equity groups compared to the total student population achieving HD, D, C, P, F grades*

Community Engagement

Strategic Objectives	Performance Indicators
1. Promote the sharing of knowledge between the University and its communities	<ul style="list-style-type: none"> ▪ Number of awards, grants or other forms of recognition received for community engagement activities* ▪ UOW staff representation on external/ community/ professional boards and forums ▪ Community representation on UOW committees ▪ UOW students on accredited internships/ service learning/ volunteer work in community ▪ Number of courses with embedded practical work experience/ contextualised learning component ▪ Public lectures/ community-focused forums/ conferences conducted by UOW
2. Contribute to sustainable economic and environmental management	<ul style="list-style-type: none"> ▪ Level of external recognition for environmental activities and improvements ▪ Number of projects for improved economic and environmental management
3. Strengthen incentives and resources for educational growth and development	<ul style="list-style-type: none"> ▪ Community focussed forums/conferences held at UOW ▪ Number of schools visited to provide: (1) careers assistance; (2) learning activities; and (3) other ▪ Number of other community outreach and enrichment programs and activities ▪ Enrolments by course at Shoalhaven Campus and Education Centres ▪ Enrolments in access and equity programs [<i>Central data not available</i>] ▪ Joint programs and initiatives with schools and other education providers
4. Take an active role in community social and cultural development and well-being	<ul style="list-style-type: none"> ▪ Participation in arts and cultural programs ▪ Participation in sports and recreation programs and events ▪ Programs and initiatives that promote diversity and appreciation of Indigenous cultures ▪ Projects and initiatives that promote community health, fitness and well-being