a ‘NU’ era in Sport

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Vice-Chancellor’s Column

The following is an edited version of a luncheon talk by the Vice-Chancellor to the Newcastle Business Club on November 20 on the regional impacts of the University.

The University is a community of nearly 20,000 students and 3000 staff, with campuses at Callaghan in Newcastle and Ourimbah on the Central Coast, and at other locations in Newcastle, including University House, the Conservatorium, the David Maddison Building and the James Fletcher Hospital.

Our major local partners locally include Hunter Health, the Mater Hospital, Central Coast Health, Baptist Community Services and the Hunter Institute NSW TAFE. We have many other partners with whom we deliver our undergraduate and postgraduate programs in Sydney, Orange, Tamworth, Singapore, Kuala Lumpur, Hong Kong and a host of other sites.

On December 5, we will celebrate 50 years since the University College became operational at Tighes Hill initiating higher education in Newcastle. From 2002, we will operate as five Faculties responsible for the delivery of teaching, research and service activities across all campuses: Education and Arts; Engineering and Built Environment; Business and Law; Science and Information Technology; and Health.

Large multidisciplinary Schools will be the academic building blocks for the University from 2002, replacing discipline based Departments in most Faculties. One example of a new School, from the Faculty of Business and Law, is the Newcastle Business School. It will operate under the direction of Professor Bernard Carey, formerly Deputy Vice Chancellor of the University of Western Sydney. This School will comprise accounting and finance, management, marketing, industrial relations and e-commerce. Another example is the Central Coast School of eBusiness and Management, which will serve the business education and research needs of the Central Coast.

Each of the five Faculties will be headed by a Pro Vice-Chancellor, who will serve as manager of the Faculty and as a member of the senior executive of the University. They will take on University wide portfolios as follows:

- business and community linkages – Professor John Marley (PVC Health);
- Central Coast based University operations – Professor Terry Lovat (PVC Education and Arts);
- research – Professor Adrian Page (PVC Engineering and Built Environment);
- international – Professor Bernard Carey (PVC Business and Law); and
- teaching, learning and academic information technology – Professor Bill Hogarth (PVC Science and IT).

A Vice President (Ms Linda O’Brien) has been appointed to manage the delivery of University services; and two Deputy Vice-Chancellors will manage key areas:

- teaching and learning, quality assurance, and enabling and English language programs – Professor Brian English; and
- research, research training and international – Professor Ron McDonald.

The University is currently ranked ninth in Australia in research performance indicators, with major strengths in engineering, medicine,
$10.8 million in Australian Research Council Funding

The University has been awarded more than $10.8 million in the latest round of Australian Research Council (ARC) funding, announced by the Commonwealth Department of Education, Training and Youth Affairs.

The funding includes 30 prestigious and highly competitive Discovery Grants worth a total of $7.5 million over the period 2002 to 2006.

The Faculty of Engineering has been awarded 17 Discovery Grants, while a further nine have been awarded to the Faculty of Science and Mathematics, two to the Faculty of Economics and Commerce and one each to the Faculty of Arts and Social Science and the Faculty of Architecture, Building and Design.

Professor Ron MacDonald, Deputy Vice-Chancellor (Research), says the University's success rate for Discovery Grants is 33 percent, compared to the national average of 19 percent.

"This is the second highest success rate in the country, which is one of the best results ever for the University," Ron said.

"However we cannot be complacent. Overall success rates are still low and there are a lot of excellent research proposals coming to the University which are still being rejected," he said.

In the area of collaborative research, the University received $2.06 million in funding for 16 Linkage Grants from 2002 to 2006. It also received one of only eight Indigenous Research Development Scheme Grants.

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It has established TUNRA, our local R&D company, with an annual turnover of approximately $7m, which links our academics and research students to local business and industry;

• the joint health/University positions and partnerships attract highly qualified medical, nursing and health practitioners to the region;

• direct benefits in terms of medical and health research (particularly in association with the Hunter Medical and Research Institute) which sees funds, staff and research students coming to the region, as well as providing enhanced health services;

• the University has a key objective of addressing the educational disadvantages of the region and there is a correlation between education, skills and employment.

The University is a substantial organisation in the region and has a major impact on the economy. We are the second largest employer in the region, and serve as a valuable resource in recruiting qualified staff, which creates an environment for business to attract senior executives and qualified staff. We attract a large body of students, including international students from more than 60 countries. The University provides access to lifelong learning opportunities and has established GraduateSchool.com to deliver online education throughout the world.

We have established the following Schools to provide education and professional services to business:

• Faculty of Business and Law
• Newcastle Business School
• Central Coast School of eBusiness and Management
• Newcastle Graduate School of Business.

The University contributes to the cultural life of the region, provides a wide range of services, contributes to debates on important social issues, and represents a vital ingredient in the business, social, professional, educational, research, economic and industrial life of the Lower Hunter and Central Coast.

As the only University in these regions, we have an enormous responsibility to our local communities. It is fortunate that our founders — the people of the Hunter and Central Coast — have established such a comprehensive, research intensive and substantial University, which provides partnership opportunities for local institutions, governments and agencies, as well as a range of education and research programs.

Roger S Holmes
Vice Chancellor and President
Faculty a model for future health care

Pro Vice-Chancellor of the University's new Faculty of Health Professor John Marley is such an advocate for Newcastle's medical degree that when two of his four children wanted to do medicine, he recommended they study here.

"It has always been the University I thought I would most like to work at," John said, "and I was quite prepared to put my family where my beliefs were."

John had some involvement with the University when, as Professor of General Practice in the Faculty of Health Sciences at the University of Adelaide, he was involved in changing their medical curriculum to a model close to Newcastle's. Also, as Dean of Students in the Adelaide Health Sciences Faculty, he changed the traditional score-based admission procedure for medicine and dentistry to the Newcastle system.

"Newcastle has the best evidence for any admission procedure and we introduced the system through the generous help and guidance of David Powis (from the Faculty of Medicine and Health Sciences)," John said. "It has had enormous benefits in terms of social justice, fairness and equity."

John also sought to have Adelaide overtake Newcastle in the number of Aboriginal and Torres Strait Islander students enrolled in health programs, this time with the help of Gail Garvey from the University's Aboriginal Health Studies discipline.

"Now, of course, I'm keen to make sure that Newcastle stays on top," John quipped.

Born in the south of England and trained in medicine at Dundee in Scotland, John first came to the Hunter region more than 20 years ago, when he worked as a general practitioner in Cessnock.

"I came on a working holiday and arrived in Sydney in 1977 with my wife and baby son and the equivalent of $15 in my pocket. We discovered blue skies and sunshine - it was wonderful."

John and his family returned to the UK briefly before coming back to Australia. He has worked as a GP in one-doctor towns including Culemborg in south-western NSW and spent some years at Yarrawonga on the NSW/Victorian border. His experiences in the country made him very sympathetic to the University Department of Rural Health (UDRH) being established by the University, with Federal Government funding, in the Tamworth region.

However, John says that the solution to the shortage of doctors in rural areas isn't necessarily training more doctors. Everything in the workforce, including the policies of former Minister for Health Carmen Lawrence, who cut the number of medicine and health places in Australia, and the movement by graduates towards part-time work, point towards a shortage of doctors. He believes the answer is in restructuring the way that health services are delivered so that all health professionals are utilised in appropriate ways.

"Twenty years ago, high blood pressure, diabetes and asthma were treated in hospital, whereas today they are managed in general practice. There has been no corresponding flow away from GPs into other health professions, such as nursing. Working in the country, I found that nurses manage a large number of conditions on their own. In many cases, nurses are highly trained and working as independent practitioners."

John has asked the Dean of Nursing Professor Margaret McMillan to be his deputy in the new Faculty of Health and has found her advice and guidance invaluable in setting up the new Faculty.

Newcastle has virtually the whole range of health training and John believes that putting it all under the one faculty structure at the University is particularly timely.

"Recent government changes in the delivery of health care have resulted in a move away from fee-for-service medicine and into the blended payment system, where practitioners are paid for the standard of their care or for meeting immunisation targets, for example, rather than churning patients through their surgeries," he said. "The whole emphasis for the future is on health care teams."

The University's Faculty of Health is like a model of that future, with all the disciplines under one roof, which John says will help them to focus on the sort of definition of health outlined by the World Health Organisation - complete physical, mental and social wellbeing, not merely the absence of disease.

John has numerous qualifications including a medical doctorate from the University of Adelaide. He has also worked as a senior executive with multi-national company Bayer, which he says will help him in his other executive portfolio at the University - Business, Community and Aboriginal Relations.

"One of my positions at the University of Adelaide has been as Associate Dean (International), which has shown me the value of alumni as representatives of a university. It is vital to know where your alumni are and to engage them in the life of the university."

John is an active researcher and has (with a co-investigator) just won NHMRC funding of $1.27 million to continue involvement in an international study into the outcomes of hormone replacement therapy. This will involve around 36,000 women from around the world in a 20 year study. He will also seek to practise medicine in Newcastle, probably in general practice but perhaps in a hospital emergency care setting if there is a need.

"It's important to me - that's why I went to medical school in the first place," John said. "I also want to teach and I plan to have a problem based learning group for at least part of each year. It's a really enjoyable thing to do and gives you a real insight into what's happening at grass roots level."
Making complex algorithms simple

Mike Fellows, who delivered his inaugural Lecture as Professor of Computer Science last month, finds complex mathematical algorithms so accessible he has devised new ways of teaching them to kindergarten children.

"It began in my children's classroom as a hobby and I liked working with little kids," Mike explained. "It was hard, 10 or 15 years ago, to find any research mathematicians working with young children and you can often be looked down on as someone who isn't a serious researcher if you do."

There is no danger of this happening to Mike, however. Despite pioneering activities and games that introduced young children to the concepts of parallel algorithms and logical qualification - concepts that many undergraduates struggle with - Mike has an international reputation for his research work as well.

"There was a great moment in one of my children's classes when the boy who everyone thought was destined for gaol, who was no good at maths, got excited by a puzzle and said 'This is mathematics! This is megapuzzle and said 'This is mathematics'. I used megapuzzle algorithms that many undergraduates struggle with - Mike has an international reputation for his research work as well.

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Mike's techniques for teaching maths to infants school aged children are used in teacher training around the world. His two books on the subject have sold well and have been translated into Spanish and Norwegian. And that's just his hobby!

Mike is a native of San Diego, California and obtained his PhD in computer science from the University of California, San Diego, following a Masters in mathematics, also from UCSD. His achievements include highly regarded research in a variety of areas including parallel and distributed processing, cryptography, computational complexity theory and computational biology. He is best known internationally for his parameterised complexity theory, with his monograph (co-authored with Rod Downey of New Zealand) published by Springer in 1998.

"Computers are machines for cooking up information but as they sit on our desk, the recipes for the information chemistry are largely invisible," Mike said. "We tend to think magically about the issue, assuming that faster and shinier hardware is the main road to better performance - in fact, the recipes are the key thing."

Without reasonably efficient algorithms, for example factoring a number into primes, it could take the lifetime of the universe to do the job, even with a computer 1000 times faster. In fact, Mike says, the security of modern financial systems depends upon reasonable conjectures that for some problems (such as prime factorisation), efficient algorithms don't exist.

Most of the time, however, we would like to have efficient algorithms to solve complex problems like analysing human DNA and protein sequences.

"Parameterised complexity has developed as one of several possible ways to continue the quest for efficient algorithms. They key idea is to move to a multi-dimensional perspective on computational complexity. This shift of perspective has allowed the development of new algorithmic approaches that provide reasonably efficient and useful algorithms for small parameter ranges of hard problems."

Mike came to Newcastle with his wife Fran Rosamond, who is a Senior Lecturer in Computer Science and specialises in multimedia and computer game design. He came from joint appointments at the University of Victoria in British Columbia (as Professor) and New Zealand's Victoria University in Wellington.

"We moved here looking for jobs in the same place. The world is an international market now and Newcastle is a great place to live. We both like to surf and spend time in the outdoors and you can hardly do better than here."

Mike, who took up his appointment at the end of May this year, delivered his inaugural lecture in the Engineering Faculty ES Building on November 29.

University doubles medical research income

The University has nearly doubled its income from National Health and Medical Research Council (NHMRC) funding, announced by the Federal Government.

Almost $1.6 million has been secured for 13 new research projects, with grants for continuation of these projects taking the total new funding for the University from 2002 to 2006, to $4.89 million. These grants, together with grants which the University holds from awards in previous years, mean $3.21 million from the NHMRC will be available to support research in 2002.

Deputy Vice-Chancellor (Research), Professor Ron MacDonald, says the University's success rate of 26 percent is a nine percent improvement on last year.

"It is also above the national success rate of 24 percent," he said. "This is a very pleasing result and reflects the quality and relevance of the work carried out here. The funding will also mean a boost to the local economy."

The 13 new research projects cover research into prostate and breast cancer, premature births and pregnancy. Eleven have been awarded to the Faculty of Medicine and Health Sciences, valued at $4.038 million over three years, and two to the Faculty of Science and Mathematics valued at $625,000 over three years.

Successful applicants include Professors James Denham, Roger Smith, David Henry, John Rostas, Rodney Scott, Peter Danksley and Jill Cockburn.
A key issue for the new Executive Director of Facilities Management Services Don Foster is to ensure that the University doesn't 'build out' the Callaghan campus.

“We need to jealously guard one of the things that makes the University very different - our bushland campus - and we will have failed, in my opinion if we build it out or turn it into a giant carpark for private vehicles.”

Don says that the University is fortunate to have staff who are committed to environmental sustainability within Facilities Management Services and elsewhere across the campus. Guarding the integrity of the natural campus involves two key elements, he says - managing future development and improving public transport access.

“I'll be very keen to develop the University's land bank as opportunities present themselves, particularly vacant land in close proximity to the Callaghan campus,” Don said. “Money invested in land gets a good return. I'm also interested in developing the city precinct and will take any opportunity to buy buildings around University House. It's important to retain that strong city link to enable students who work in the city to study there.”

Facilities Management Services would also continue to seek viable transport alternatives to private cars. Efforts to improve the reliability, convenience and affordability of public transport over the past five years or so had resulted in a much higher rate of use by the University community than overall usage in the area, Don said.

University facilities were increasingly being scrutinised as part of the value for money considerations of students seeking education in a highly competitive market, according to Don. Students were not prepared to accept offsets in physical facilities in order to increase satisfaction in other areas and unsatisfactory facilities would result in students going elsewhere, he said.

“We must provide high quality and functional facilities within our budgets and be prepared to maintain them adequately. Proper recurrent and major maintenance, and sophisticated space management are essential to achieving that.”

By giving some responsibility for space management and other facilities management issues to the Faculty Service Directors, the new structure will encourage closer working relations between Facilities Management Services and the faculties. It will allow the faculties greater freedom in the way that they develop class timetables and make it easier for them to manage their facilities more intensively in ways that suit their needs rather than in a one size fits all approach.

Don says that the concept of one university did not rely on people being physically co-located in the one building, although he was currently working to ensure that the new PVCs were adequately housed in areas that put them in proximity to their staff. Don will move from his current office in the Chancellery to one of the University residences, which have become part of his new group.

“Historically, the residences have operated as self-contained entities but I plan to bring the facilities management for them into the mainstream. Integrating the maintenance for the residences will ensure it is done more efficiently, to be more time and cost effective. The student care component of the residences will move to the Student Service Centre, which will ensure that all the student support services are readily accessible to residential students.”

Don, who is originally from Orange in western NSW, did his initial training in accountancy and subsequently did a Bachelor of Business at Charles Sturt University and a postgraduate Diploma in Education Administration at the University of New England. He worked for the Department of Health in Sydney, where he met his wife, but missed the country and took a position at Mitchell College in Bathurst. He worked as Secretary of Orange Agricultural College before he began as Assistant Registrar at the Hunter Institute of Higher Education (HIHE) in 1985. He went to Newcastle Technical College as Registrar for a year and returned to HIHE as Registrar in 1988. He became Registrar of the University following amalgamation in 1989, responsible for staff, legal and property services.

Don says his accountancy training has come in handy as he has been responsible for more than $250 million in capital expenditure over the past decade. After overseeing a period of massive growth at Callaghan, Don says that the University's major new capital works have now reached a plateau, with only two buildings in the works - the Aboriginal Education Centre that is currently under construction on the edge of No 4 oval, and the proposed $8 million Communications Technology Building, which should be completed by 2004.

A major priority for Don’s service group will be supporting the restructure by providing facilities for new areas of study, research, teaching and service provision; improved facilities for postgraduate students and staff development; and to encourage a one-stop shop approach to student and staff services. Facilities Management would continue to develop as an integrated group of professional and skilled staff across a wide range of areas including planning, landscape, space management, environment, operations, building services, campus services, and on and off campus residential operations. Don says it is well equipped to support the University's goals.

“Most work experience to date qualifies me to pick up what is now expected of me in this new position. A lot of my confidence comes from knowing I have excellent staff in Facilities Management Services and I'm looking forward to developing a lot of new working relationships.”
Communication is the key

Communication and staff involvement will be key elements in creating a culture that enables staff to manage the constant changes necessary to maintain the University's competitive advantage, according to Executive Director of the Staff and Workforce Management Services group Ian Pike.

"Uncertainty about the future is the immediate concern we need to deal with in the restructure process and we are trying to talk to as many staff as we can to reinforce the fact that staff will be very much involved in shaping the way we work into the future," Ian said. "There are opportunities being presented by the restructure but staff may find the process confronting and we need to give people some certainty."

Ian believes that while the restructure may initially mean nothing more than a new reporting line for many staff, it will over time involve new ways of working. The University will need to create a learning environment where staff can drive the changes necessary and Staff and Workforce Management Services will need to help facilitate that process.

"The restructure doesn't mean we throw out all the things we are doing. Workload modelling, for example, is a key issue for the University and the work being done is contributing significantly to individual and organisational unit performance. Managing for Performance is also crucial to our ability to develop dialogue between staff and management, to build trust and the ability to manage interpersonal dispute."

Communication and involvement of staff are fundamental elements in establishing the appropriate culture within the University and improving the mechanisms to facilitate them will be an important strategy for Staff and Workforce Management Services. A major initiative will be moving to the concept of teams driving and defining roles, responsibilities, relationships and systems of work. Devolution of decision making will be developed in tandem with team based structures, with the use of 'e' transactions reducing administrative activity.

"There are a range of changes we need to make, including consulting with staff to devolve a lot of our process activities and improve services to staff. This doesn't mean transferring work to others -- it means devolving the decision-making about some things or providing options for people. For example, if you wanted to have your pay put into five different bank accounts, there is no reason why you shouldn't be allowed to put that directly into the system yourself. At the moment access to these systems is restricted."

There are a range of services provided by his group that wouldn't be devolved, Ian says. Recruitment services, for instance, are highly regarded and would continue to be operated by his service group. They would need to play a greater role, in partnership with the Research Division, assisting the faculties to develop the next cohort of researchers through succession planning.

"In bringing together part of the Learning and Development unit with HRM, we have the opportunity to facilitate change through leadership and management development for the University's executive. Beginning with the Pro Vice-Chancellors and then through induction of the heads of schools, assistant deans and others, we can help them to work out how the new structure will operate. Part of the thrust of the Review Report was to improve working relationships across different areas of the University and we can begin to address that by not ordaining the way things will be done in the new structure but by ensuring staff across the University are involved in shaping the future."

Ian believes that the senior executive group of the new University Services Division have meshed in a way that provides a strong indicator of the success of the University's new direction.

"The members of the Senior Executive Group are driving a University-wide perspective. There is general understanding that there is a need for the PVCs and the faculties to arrange things to suit their individual areas and that there are some things we need to do collectively to facilitate that and to provide quality assurance. Linda O'Brien has an open collaborative style of management and there seems to be a lot of maturity across the University about developing the new relationships and roles."

Staff and Workforce Management Services under Ian will also move to accommodate a wider "community of contributors" to the University. The flexibility of employment arrangements will increase as the move towards values based rather than procedural policy frameworks continues, Ian says. Incorporating HRM and learning and development to the new service group will help them to deliver services within a 'unitary' framework.

Ian came to the University this year as Director of Human Resource Management -- from the CSIRO, where he was Manager of the Human Resource Operations in Canberra. Originally from Mudgee in western NSW, he learned his trade during his time with the then Department of Water Resources, where he began work in payroll. He completed Certificates in Public Administration and a Certificate of Safety Management before doing an applied science degree specialising in occupational health and safety at the University of Western Sydney. He worked for the Sydney Water Corporation as a senior consultant before joining the CSIRO.

"My first priority is to bring together the staff and stakeholders of Staff and Workforce Management Services to provide opportunities that enable them to contribute to defining our future," Ian said.
Engineering opportunities

Dr Karl Bremer introduces a future engineer to the tools of the trade at this year's Central Coast Community Open Day.

Engineering programs will be offered at the Central Coast Campus from the beginning of the 2002 academic year.

A collaborative agreement between the Campus and the University's Faculty of Engineering, based at Callaghan, has made a number of engineering programs available for study at Ourimbah including software, chemical, civil, surveying, mining transfer, computer, electrical, telecommunications, environmental, mechanical, mechatronics, computer science and combinations of these, which provide 17 options for combined degrees.

Director of the Central Coast Campuses (of which the Ourimbah Campus is a part), Dr Barry McKnight, said the introduction of engineering in 2002 is an exciting development that has been long awaited on the Central Coast.

"Over the years, many students who wanted to stay on the Coast for their studies have expressed an interest in engineering," he said. "Initial promotion of the new opportunity for 2002 has produced a swag of enquiries from potential students. This will also provide opportunities for local TAFE engineering students to commence professional studies and gain credit for their studies."

Students will study the first year of their engineering program at the Ourimbah Campus and the second and subsequent years at Callaghan. All first-year courses will consist of lectures, tutorials, laboratories and practicals, mostly conducted at the Ourimbah Campus with one or two requiring travel to Callaghan once a week.

The Central Coast is one of the most rapidly growing areas in Australia and introducing engineering programs will ensure that the Ourimbah Campus meets the needs of its "customers" and provides the educational choices that they need, Barry said. The recent relocation and decentralisation of companies to the Central Coast region provides a local market for engineering graduates, he added.

"Naturally we are delighted to be able to offer engineering programs here and look forward to a continuation of our fruitful and harmonious relationship with the Faculty of Engineering, both academically and administratively," Barry said.

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Surveying for megafauna

A group of University surveyors are helping to unravel the mystery of what happened to Australia's extinct megafauna.

Professor John Fryer, Dr Eric Kneist and Mr Bobby Paquet of the Department of Civil, Surveying and Environmental Engineering have surveyed an archaeological dig site at Cuddie Springs in northwestern NSW as part of a project that shows that humans may have hunted megafauna.

The study, by Dr Judith Field of Sydney University's School of Archaeology, has located stone tools and other indicators of human activity alongside the bones of megafauna. The bones and tools found at Cuddie Springs are the only known evidence for the interaction of people and megafauna in Australia.

"The dig site is centred in a dried lake bed and our task was to measure and plot the shape of the base of this lake bed radially for up to two kilometres from the site," John Fryer explained. "We used the latest in GPS satellite positioning equipment to obtain heights across the region."

Aboriginal tribes are believed to have coexisted with megafauna in the Cuddie Springs area from 25,000 to 45,000 years ago.

"The Cuddie Springs site is rich in terms of the animal bones and human artefacts being unearthed," John said. "It was a bit scary tramping through the brush, having heard stories of large brown snakes the night before, but all we saw were emus and kangaroos."

John said Dr Field was delighted with mapping, cross-sections and 3-D representations of the lake bed produced by his team. As Sydney University has no surveyors, further interactions are already planned between our surveyors and the archaeologists, with a major field trip to another site in the works for 2002.
Scandinavian designs

More than 40 Scandinavian design students — part of a growing contingent to study in Newcastle — celebrated the end of their studies with a barbecue and presentation ceremony at Nobby's surf pavilion last month.

The students, from the University of Gothenburg in Sweden and the Mercantile Institute in Norway, had been in Newcastle for up to 18 months studying in the Department of Design.

Head of the Department, Professor Tony Eddison, said that this year's cohort was the largest to study at Newcastle as a result of a two-year old agreement. Around 70 students were completing the second and third year of their studies, with the agreement seeing between 25 and 30 students arrive each semester.

"Design is taught differently in Norway and Sweden, with very few colleges offering it at a higher level," Tony explained. "We have negotiated articulation with the MI, which has seven or eight colleges around Norway and trains students to what would probably equate to an advanced diploma qualification here."

The Newcastle design course had proved so popular amongst the latest cohort that 20 Norwegian students are hoping to return to the University to complete Honours next year. The MI agreement credits the Norwegian students with up to 120 units so they enter in semester two of the second year of the three year Bachelor of Design. Their studies are funded by the Norwegian government, with the Newcastle course having gained official accreditation.

"The agreement was developed by collaboration between the Department of Design and the International Development Office," Tony said. "The Scandinavian students enjoy the beaches and the outdoor life, as well as the character of the people, whom they find friendly and approachable. Our students and staff also benefit from the northern hemisphere design sensibility and the students' high expectations and serious work ethic."

The farewell was held at Nobby's Beach on November 5.

Macadamias for a healthy heart

University research has found eating macadamia nuts reduces risk factors responsible for developing heart disease.

"Not only do macadamias lower levels of bad cholesterol," says Dr Manohar Garg, Director of the Centre for the Advanced Food Technology and Nutrition, "but they increase the levels of good cholesterol, giving a double benefit."

Eating macadamia nuts also reduces oxidative stress and provides protection against blood clotting, which is a major problem in heart attacks and strokes, according to Manohar. The research involved a group of volunteers aged between 30 and 70, all with blood cholesterol levels above 6.2. They ate about 50 grams (a handful) of macadamias each day for four weeks and were then tested for cholesterol levels, oxidative stress and blood clotting biomarkers.

"We found all of the volunteers had reduced total cholesterol levels by three percent," Manohar says. "The bad cholesterol levels fell by 5.3 percent and the good cholesterol rose by up to seven percent."

Macadamias have the highest level of mono-unsaturated fats, more even than olive oil and a large amount of plant sterols, and that is what works to reduce cholesterol. The researchers also found that macadamia nuts did not contribute to any weight gain, despite an increase in fat intake.

"The research has shown that eating macadamia nuts as part of a healthy diet has a beneficial effect. What needs to be determined is if the benefit is sustained or increased over longer periods. There are also other health benefits of the macadamia nut that need to be explored," Manohar says.

Macadamias are also rich in protein, calcium, potassium and dietary fibre. The research was carried out for the Horticultural Research and Development Corporation and the Australian Macadamia Society.
February 2002 will herald the beginning of a new era in University sport, when NUSport becomes the single governing body that will assume responsibility for the activities of the Sports Union and the Forum, the University's Sports and Aquatic Centre.

NUSport is the result of lengthy - and at times controversial - discussions, with several proposals for the future of sports administration at Callaghan debated over the past 12 months.

Chair of the NUSport Board, Trevor John, says the new body will provide the best of both worlds - an opportunity to forge new relationships with community and alumni through the Forum and other facilities, and a continuation of the proud traditions of the Sports Union, established over its 40-year history.

“NUSport will align the activities of the Forum more closely with the University’s activities and will still seek to encourage strong links with the wider community,” he said. “By combining the Sports Union and the Forum into one entity, we will be able to offer a greater range of services to our members (staff and students) and avoid unnecessary duplication.”

The new arrangements will be well suited to the modern way of sports training, which involves cross training to improve fitness and build team spirit, Trevor said.

“NUSport now looks after bookings for all the University’s sporting facilities, whereas previously the Sports Union was separate to the Forum. Everyone - the clubs, schools, academics, the Knights, individuals - can now organise outdoor and indoor training sessions in one place.”

A board comprising volunteers representing staff, students, graduates and University divisions, administers NUSport. The new General Manager of NUSport, Samantha Martin, reports to the Board and the Executive Officer of the Sports Union, Adrian Iakin, will be Executive Officer of NUSport.

Samantha Martin says the Board is wonderful as the broad range of representatives provides her with access to a variety of expertise. Sam, who has just completed her Master of Industrial Relations/Human Resource Management at the University, brings expertise of her own to NUSport.

Sam went to Maitland Girls High School and then did her Bachelor of Business at the University. She came from a position in executive recruitment to become Sport and Fitness Manager of the Forum in March 1998. Although Sam says it is now a passion for her, she was initially 'dragged into' the world of indoor sports.

“My mother (who now works as a fitness trainer at the Forum) managed a facility and I used to get dragged along to the gym,” Sam said. “I got involved in group exercise and personal training and then decided to see where the sport could take me by competing.”

Sam and a group of friends, who now mostly work at the Forum, formed the University of Newcastle Elite Step Team and after winning the Australian teams title in 1999, won the World Aerobics Championships in Belgium last year. For Sam, preparing to defend the title this year in Morocco meant more than two hours training with the team each day as well as individual training - all while studying, tutoring and running a business! The group were narrowly defeated, winning second place and Sam has hung up her competitive leotard for the time being to concentrate on NUSport.
Staff and students have access to a wide array of sporting facilities on campus at Callaghan, including:

- Squash and tennis courts
- Indoor swimming pool
- Fully equipped gymnasiums
- Indoor sports courts
- Sporting oval
- Climbing wall
- Aerobics studios
- Outdoor basketball and netball courts

Staff and students can also join the University's many sporting clubs:

- American football
- Athletics
- Baseball and softball
- Boat (rowing)
- Fencing
- Men's and Women's Hockey
- Jiu Jitsu
- Kendo
- La Pena (Latin American dancing)
- Mountain biking
- Netball
- Rugby League
- Men's and Women's Soccer
- Surfing
- Tennis
- Ultimate Frisbee
- Volleyball
- Water Ski

For enquiries about NUSport facilities and club membership, call 4921 7001.

It's been a long process and at times there was a lot of focus on the negative aspects of the Forum - I don't know how many times I have apologised to people who are feeling let down," she said. "I have been part of the university environment for many years and have seen things from a student perspective, a staff perspective and a business perspective. I felt as though I had an obligation to try and clarify the situation and educate people about the positive aspects of the Forum.

Sam says the Forum is a strong business in terms of the service it offers to its prime customers - the students and all of the University. Newcastle is in the top three of all Australian universities in terms of the participation rate in sporting facilities and the sheer number of activities offered. As well as benchmarking the University's facilities against other national and international facilities, Sam says the Forum constantly goes back to user groups to seek feedback on their services.

One of our biggest assets is that we don't have a hierarchical structure where those managing the facilities are so far away from the members they don't know what people want. The Board is there to set strategy and the University environment sets the framework for our business but we are very much focussed on our customers."

Sam says the Forum has also turned the corner financially, with the organisation running more smoothly under NUSport, which has been running the Forum since August, when the original company was liquidated. Participation rates in the facility increased more than 10 percent in the first month alone.

"It's not a revolutionary change but an incremental one," Sam said. "As well as bringing the Centre closer to the University community, we have engendered a lot more ownership in the Forum's staff for their department's performance and that has helped to change the outcomes financially."

Part of creating better working relationships with the University involves quality assurance of the Forum's facilities by Physical Planning and Estates and by the University Union in the Centre's café. The Faculty of Medicine and Health Sciences is set to start a physiotherapy facility in the Forum to coincide with the commencement of physiotherapy courses at the University.

"Previously, the Forum didn't have too many mutually beneficial relationships with University groups," Sam said. "It has been this relationship building that has assisted in turning the business around. I get so much assistance from individuals within the University that it often surprises me. Now they have a stake in ensuring that the place is working well."

Trevor, a lecturer in the Department of Communications and Media Art who became involved with the University Cricket Club in 1990, is also President of the Sports Union. He says NUSport will not officially take over the Sports Union activities until February next year, when the current memberships expire. The University Sport and Recreation Division that supported the Sports Union's structure will be wound up and work is underway to affiliate the more than 30 sporting clubs of the University to NUSport.

* There is a growing awareness on campus of the quality of the Forum facilities for personal and individual training. Word is out amongst the students that there are excellent, vibrant instructors running it and that they provide good quality services. We hope that the University's graduates will be attracted to renew their sporting ties through NUSport, either with the clubs or at the Forum, or both."
Responsibility for welfare support and delivery is being transformed from Government and charity groups to what is called Social Entrepreneurship, according to Newcastle Economics Professor, Bill Mitchell.

"In the same way that government has abandoned its responsibility for full employment, the social entrepreneurship movement is pushing for a reduced government role in welfare provision," Bill says. He argues that "the social entrepreneurship movement stresses creative community collaborations with business, but in reality much of it is an extension of the neo-liberal agenda of user pays and reducing government responsibility."

Supporters and protagonists of the social entrepreneurship trend presented their views at a workshop held in the Shortland Union building on November 21.

Advocates of social entrepreneurship maintain that improved collaboration can bring benefits to all parties and particularly, improve circumstances at a local level. Opponents believe that it allows government to abrogate its responsibility in the provision of welfare services and job creation.

The workshop explored what the roles of government, business and community groups are in the provision of welfare services and employment opportunities.

Entitled 'Social Entrepreneurship: whose responsibility is it anyway?', the workshop was jointly hosted by the University's Centre of Full Employment and Equity (CoFEE) and the Department of Social Work.

Speakers included:
- Mel Gray and Penny Crofts, Department of Social Work, University of Newcastle, and Karen Healy, Department of Social Work, Social Policy and Sociology, University of Sydney;
- Peter Tregilgas, Social Enterprise Manager, Adelaide Central Mission and Board member of the Social Entrepreneurs Network;
- Catherine McDonald, School of Social Work and Social Policy, University of Queensland (Fixing the Niche? Rhetorics of the community sector in the neoliberal welfare regime);
- Claire Field, Senior Policy Officer, Research and Social Policy, Mission Australia (Mission Australia's concept of Social Entrepreneurship); and
- Beth Cook, Chris Dodds and Bill Mitchell, CoFEE, University of Newcastle (The false premises of Social Entrepreneurship).

Background

The Centre was established last year as a way to draw together researchers from engineering, geography and science with a common interest in the way the environment operates — the processes that drive it — and how to accurately predict environmental outcomes.

Director A/Professor Garry Willgoose says that although the researchers specialized in different aspects of environmental rehabilitation, including minesites, wetlands management of degraded agricultural land and the impact of urban development, they shared an interest in trying to understand the underlying processes of the environment.

"When you look at the changes over time in climate, for instance, they have an impact on..."
Seeking effective leaders

The need for more effective leadership was debated at the Leadership in the 21st Century conference held at Noah's on the Beach on November 9.

The conference was convened by Dr Julia Connell from the University's Graduate School of Business and Dr Ken Parry from Victoria University in Wellington, NZ, and attracted academics, industry leaders and graduate students.

"The very public collapse of several large Australian organisations this year has resulted in critics questioning the leadership ability of their CEOs and asking whether a different type of leadership may have led to more effective outcomes," Julia said.

"The results demonstrated that, despite cultural differences, perceptions of effective leadership vary only in respect of the extent to which participation is seen to facilitate leadership," Julia said.

"For example, in the 'Anglo' cluster of countries, participative leadership is seen as much more facilitative of leadership than in either of the 'Asian' clusters."

Conference delegates heard that while the 'harder' aspects of leadership such as the development of strategy are important, it is the 'softer' aspects that make the difference between effective and ineffective leadership.

"In such a turbulent economic era, one of the most important skills a leader can possess is the ability to assist in making sense of chaos," Julia said.

soil, water and vegetation," he said.

"In order to actively manage the environment, you need to understand a lot of fundamental science about the way that it operates, so that you can disentangle the effects of your management from changes that are going to happen anyway."

Research

Researchers in the Centre are the only group in Australia looking at the long term impact of human activities on the environment. Rather than concentrating on the problem of how to establish vegetation in soil disrupted by mining, for example, they model what the environment will be like 100 to 500 years after rehabilitation.

With the combined talents of six engineers (from the Department of Civil, Surveying and Environmental Engineering), five scientists (from the School of Biological and Chemical Sciences), and a geographer (with two more about to come aboard), the Centre is attracting funding for a range of exciting projects. Two major areas of research are water-sensitive urban design and minesite rehabilitation. A project looking at harvesting rainwater in an urban housing development at Figtree Place in Newcastle is being sponsored by local water authorities and government bodies.

"Water authorities have actively discouraged the collection of rainwater in urban areas because of concerns about the microbiology of the water," Garry said.

"There is now data to suggest those concerns are over-rated. By collecting rainwater, you not only reduce the burden of increasingly dense urbanisation on the stormwater infrastructure, you also reduce the need for reticulated water by using collected water to flush toilets and water gardens."

The Figtree Place research will be extended in 2002. Another of the Centre's projects is part of a global collaboration with US space agency NASA. The Soil Moisture Validation project examines the exchange of moisture between the earth and the atmosphere - a major trigger for interaction in global climate modelling. The University is one of only two or three institutions worldwide chosen by NASA to take part in the project.

Garry has worked on rehabilitation models for the Ranger uranium mine in the Northern Territory, Hamersley Iron in the Pilbara region and mines in Kalgoorlie. The Centre will model environmental outcomes of the controversial Jabiluka uranium mine.

Structure

Described by Garry as a "meeting of like minds", the Centre's researchers meet on an irregular basis to discuss joint projects. The Centre has external partners including the Environmental Research Institute of the Supervising Scientist, which is the research branch of the Commonwealth Department of the Environment, Landloch Research, a Queensland company and PPK, the Australian arm of international environmental firm Parsons Birkenauf.

Conference convenors: Dr Julia Connell and Ken Parry

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Group exercisers work harder

Nancy, an aerobics instructor, marathon runner and many times Masters Games medalist, wanted to test her theory that exercise in groups was more valuable for improving self-concept than exercising alone. Her findings, however, surprised her.

All her participants, whether they went to specially developed moderate-intensity aerobics classes or followed the same classes on video alone at home, substantially increased their fitness levels and felt better about themselves physically and personally.

However the group exercisers achieved the same improvement while exercising less frequently, but with more sustained effort, than the ‘home alone’ exercisers.

“The records of the home exercisers showed that they exercised more often than those who had to travel to attend group exercising alone. Her findings, however, surprised her.

Group motivation: Nancy Dickman works out at the Forum

Maintaining intensity in your exercise sessions is more likely to make you feel good about yourself than exercise frequency, says Nancy Dickman, a fourth year Psychology student who has just completed research based on 61 volunteers exercising for eight weeks.

Women GPs call for changes in the bush

Dr Helen Tolhurst

Traditional ways of working and inflexible practice structures in rural surgeries discourage women doctors from working in the bush, a University study has found.

Many women rural doctors felt stressed, underpaid, unable to find suitable childcare and worried about their personal safety, the study found. The $399,000 study, to investigate strategies to recruit and retain more women in rural general practice, was funded with by the Commonwealth Department of Health and Aged Care.

"With half our medical students being women, and 61 percent of registrars training for general practice being women, the department wanted to know how to increase the percentage of female rural doctors from the current 20 percent," says Dr Helen Tolhurst, senior lecturer in Rural General Practice with the University, who conducted the research.

"In order to address the shortage of rural doctors, it is important that more women go into rural practice and that those who are already there are encouraged to stay."

Helen interviewed 114 female rural GPs from a wide range of working environments, districts and family situations. Most were positive about the benefits of a rural lifestyle and enjoyed practising ‘whole of life medicine’ and caring for entire families from babies to great grandmothers. However the majority felt they lacked professional or personal support. They felt that current practice structures had been developed for the traditional male doctors with a full time wife and did not reflect the problems of a woman in relation to hours worked, childcare, maternity leave and personal safety.

The study also identified some practices that women doctors had set up themselves. These show that it is possible to develop flexible structures that accommodate the needs of women, Helen said.

"It is wonderful to see women developing new ways to do things that will make rural practice more sustainable in the long term."

The recommendations of the study, which have been endorsed by the Federal Government, include a national female rural GPs’ support network, programs that provide leadership training for women, an agency to find jobs for spouses, programs for stress management for rural doctors and the encouragement of more allied health professionals to the bush to lessen the counselling burden on women GPs.

Helen has been awarded the first Rural and Remote National Health and Medical Research Council Research Fellowship in Australia to undertake further research on rural and remote health by focussing on medical students and young doctors considering rural practice.

"I'm thrilled to bits," she said. "It is a rare privilege for an academic to be able to work on a research program that really interests them for a period of four years. This is very important research for the University in that we, as a medical faculty, will have the opportunity to contribute to the policy on recruiting young doctors into rural practice."
Working to improve international focus

With the number of international students coming to Newcastle increasing every year, the University last month held an International Student Liaison Workshop to hear feedback from students and look for ways to improve its services to them.

Giving his perspective on internationalisation and the creation of a student-centred environment, the Vice-Chancellor Professor Roger Holmes said Australia has the largest cohort of international students in the world, with 15 percent of its total student body coming from overseas.

"There are approximately 3000 formal agreements with overseas universities and more than 83,000 international students in Australia," Roger said.

"Internationalisation is very much a part of core business in Australian universities."

International students Thabani Ndlovu from Zimbabwe and Christin Johansen from Norway, both members of the University's International Student Forum, spoke about their experiences as international students.

Thabani, who has been at the University since 1999, said that students had related that some of their courses didn't have an international feel, with case studies being locally focussed.

"I have had a lot of positive experiences at the University and have found individuals across the board who are prepared to walk that extra mile to help me, even when it means going outside their area to find the help you need," Thabani said. "The new structure of the University gives me comfort and confidence. We want to work with the University to find better outcomes."

The Vice-Chancellor said that the University aims to create a student-centred learning environment and its goals include facilitating access, academic progress and success of all its students.

"The students have raised some important issues and I know they will be taken up in the discussion groups," he said. "It is the University's intention to improve student employment prospects, deliver quality support services and to ensure relevant international context and curriculum content."

Staff from across the University, including a good representation of senior executive staff, attended the four-hour workshop on November 27, participating in discussion groups on a range of topics including student safety and security, integration and diversity, communication, and staff sensitivity to student needs.

Support unit there to help

The International Student Support Services offers a support network for students to replace the family and community support they leave behind when they study overseas, according to International Student Support Officer Paul Sewell.

Paul, along with Manager Catherine Browne and two other support officers, are involved with international students from the time they arrive to the time they finish their studies and fly out again.

"We provide a full week of orientation to overseas students to introduce them to life in Newcastle, including tours of the campus and of the area, and information sessions by members (both academic and administrative) of the University as well as people external to the University such as the Department of Immigration, the Taxation Office and the police."

The International Student Support Services act in an advocacy role for students and introduces them to other relevant University services, working closely with counsellors, chaplains, and NUSA. They plan to run workshops for staff next year to raise awareness about the sort of issues that confront international students during their studies.

At the end of each year, the International Student Support Services organises a Farewell Ceremony for international students who have completed their studies and will miss their graduation ceremonies. They also conduct a Going Home program to prepare the students who have been here for a number of years for the ‘reverse culture shock’ they are likely to experience when they go home. The International Student Support Services also helps to organise the UNITED Games – a light-hearted contest between international students held twice a year.

"Our philosophy is to be there for the students and replace the support networks that most Australian students already have and take for granted," Paul said.

"We also want to help staff members who are dealing with international students – because helping and supporting them is our core business, we can usually provide answers for any of the issues they might encounter."

To contact the International Student Support Services, call ext 7304 or email international-support@newcastle.edu.au.
Balancing comfort with sustainability

PPE is in the process of providing air conditioning to six lecture theatres in the Mathematics building and three in the Social Science building, to allow cooling for the summer months. These theatres have not previously been air conditioned and have been targeted for upgrading in response to student and staff feedback.

The design of the air conditioning plant to serve the theatres is as energy efficient as could economically be achieved. However, it is still expected that the cooling systems will increase the University's greenhouse gas emissions by 150 tonnes annually. This reflects the University's commitment to responsibly balancing the comfort of our students and staff with the net environmental impact from our operations. Tree planting and other measures that offset this impact are part of the University's ongoing initiatives.

This project has an estimated capital cost of $700,000 including annual maintenance cost of $5,000 and operating cost of $10,000.

Passive cooling for GP

PPE recently met with the staff from one of the first buildings on site for which sustainability formed part of the design brief – the GP building. Whilst expressing their appreciation of working in a building that provides natural light, ventilation and views of the bushland campus, some staff from the top floor expressed concerns arising from the thermal discomfort they experienced on very hot days during summer.

To improve their comfort, PPE's architects have designed sunshading and manually operated internal wall insulation panels for the northern façade. The work will be undertaken over the Christmas break. This internal wall insulation is designed to deflect the sun's heat in summer and allow heat into the offices during winter. It is anticipated that this simple design would improve the comfort levels at no extra ongoing energy and environmental cost to the University. In addition, the ceiling void of the building has recently been vented using wind driven ventilators, which will also assist in improving summer thermal performance on the top floor.

New home at David Madison Building

A request to co-locate groups from the current Faculty of Medicine and Health Sciences involves minor refurbishments to the David Madison Building. This includes upgrading the existing information technology infrastructure. Pending approval, work is scheduled for early in the new year.

Moving General Practice

The Faculty of Medicine and Health Science's Discipline of General Practice has been relocated from the Walker Building at Wallsend to University-owned Newbold's building in Mayfield. The staff and students will appreciate the extra space and the quality of the new facility.

Hunter Building

Stage Two of the Hunter Building refurbishment is scheduled for this Christmas vacation. Included in this project is the provision of Physiotherapy laboratories for the new course commencing in 2002. The existing Nutrition and Dietetics teaching area and a Distance Learning Office for the Faculty of Medical and Health Sciences will be upgraded. Levels B and C are linked with ramps to facilitate access for disabled students and staff.

Aboriginal and Torres Strait Islander Centre

This year's rainy spring has slightly delayed the completion of the Aboriginal and Torres Strait Islander Centre to late January 2002. The building already has a striking presence with the roofing and external walls now in place. Internal fit-outs are in progress.

A suspended access bridge from the first floor of the Centre will link to the pathway near the Design North bus stop, providing enhanced pedestrian and disabled access. The current occupants of Wollotuka will move into the new Centre. To continue the progression, NUSA is scheduled to move into the vacated Wollotuka building.
Blackboard

Blackboard was first used at the University in January this year, beginning with Graduate School students. Since then, there have been 253 courses involving a total of over 5000 students. All indications are that 2002 will see even more.

The version used this year has been Blackboard Courseinfo 4. Since then, Blackboard has introduced a new version (Blackboard 5.5) offering a number of benefits, including improved navigation, with customisable links; better handling of graphics in content areas; automatic handling of lost passwords; the ability to make material available on a timed basis; greater instructor capabilities in management of students; and more options for appearance and functionality configuration.

The new version of Blackboard will be installed in the week of 10th December. It is expected to take only two to three days, but may take as long as a week. In order for everyone to be ready, there are a number of activities planned:

* Training
  For those who have already used Blackboard, there are a number of seminars outlining the differences between Courseinfo 4 and Blackboard 5.5. In addition, there are some full workshops for those who have not used Blackboard, or who want a refresher. For details go to http://www.newcastle.edu.au/id/training/dates/online.html#blackboard. Look for the courses that specify V5.5.
* Documentation
  The Blackboard 5.5 manuals are accessible within Blackboard 5.5. In addition, there are a number of tip sheets and other information to help. The Blackboard Getting Started guide is available, as is an updated version of the Student Guide to Using Blackboard. All of these can be accessed from http://www.newcastle.edu.au/id/flexible/bby/ (click on the item Training and Manuals on the left side).
* Test system
  Blackboard 5.5 has been installed on a test system for instructors to try out. This is especially important for people running summer schools, since the appearance and functionality will change dramatically from one login to the next.
* Personal visits
  For those people who are a little unsure of the impact of the new version, we are happy to visit you to run through the issues.
  For more information please contact flexadmin@newcastle.edu.au.

End-of-Life for OpenVMS Operating System

Earlier this year iesd announced the end-of-life for the computer operating system OpenVMS. VMS will no longer be supported from December 31.

The OpenVMS operating system has been used extensively at the University throughout the 1980s and early 1990s for both academic and administrative computing. Since the mid-1990s, there has been a move away from VMS as the operating system of choice to Unix platforms (particularly Sun Solaris) and PC-based operating systems such as Microsoft WindowsNT and Novell Netware.

Only a small number of services are still running on the VMS platform. All new corporate applications (eg. FinanceOne, Promaster, Concept and NUSTAR) are running on the Unix platform. Due to the costs of software licences and hardware maintenance it is no longer economical to support these systems.

The only systems on campus still running VMS are EGRET, which supports some academic users and the ad-hoc reporting database for NUSS, and ADMIN which supports read-only production version of NUSS, old Finance system (pre FinanceOne), Corporate Relations system, Research system, old PhotoID system.

If you are an academic user of the central VMS server called EGRET you will have been contacted directly about the need to migrate your programs and data files from VMS to the platform of your choice. Shortly, you will be asked to sign-off that this migration has occurred. IESD is able to provide assistance in basic Unix commands (via online Userguides and training packages) and can create accounts on systems that we manage (such as Aflinga).

Work is under way to convert the old administrative systems (eg. NUSS, old Finance System, Corporate Relations database, Research system or the old PhotoID system). For further information, please send e-mail to: corpdevcommission@newcastle.edu.au. Users who have an @admin email address will be contacted to convert to the University's corporate email package GroupWise.

In addition to the OpenVMS operating system, a number of other computer protocols will no longer be supported on the campus network, such as LAT (for terminal servers) and DECnet (Compaq proprietary networking protocol). For further information on these other affected protocols please contact the Communication Services Group, IT Infrastructure, email networks@newcastle.edu.au.

For more information, please see the web site http://www.newcastle.edu.au/services/iesd/infrastructure/projects/vms_end/index.html or email decommission@cc.newcastle.edu.au.

Turning on plants' natural defences

Plants may have their own way of fighting stress induced by infection or too much salt, research at the University has discovered.

The way genes associated with microbial infection and salt stress are used by plants was a surprise discovery by Associate Professor Ray Rose in his studies of a tiny yellow-flowering fodder plant called Medicago truncatula. Ray wants to use Medicago truncatula to determine how to "turn on protective genes" to enhance a plant's capacity to respond naturally to environmental stress, pests and disease. Such a breakthrough would provide more environmentally sustainable and cost-effective agriculture by reducing the use of pesticides and fertilizers.

Medicago truncatula was first worked on by Ray when he was researching a virus-resistant grazing crop for sheep for the Australian Wool Corporation. Since those first biotechnology experiments, the little plant has become a globe-trotting genome superstar, attracting millions of dollars of international research funding. It has a website, 150 principal researchers from 16 different countries, international conferences and several large multi-institutional and multi-national projects. Ray estimates that the total world spending on Medicago truncatula is probably between $US50-70 million.

The plant, introduced into Australia from the Mediterranean region, has attracted resources and scientific interest because it is an ideal genetic model for legumes (plants that can use "good" bacteria for their nutrition) and is amenable to efficient molecular and genetic analyses.

Ray delivered a seminar entitled 'Medicago truncatula - totipotency, stress and biotechnology' at the School of Biological and Chemical Sciences on October 26.
From small beginnings – 1951 to 2001

December 3 marked the 50th anniversary of the beginning of university education in Newcastle. University archivist Dennis Rowe reflects on the atmosphere of the day.

Today, the University positively affects our lives in many diverse ways and injects more than half a billion dollars into the Hunter economy annually. This now great University can trace its origins to a ceremony held on December 3, 1951, on the steps of Newcastle Technical College in Tighes Hill - the official opening of the Newcastle University College.

Against a background of black ministerial limousines, an impressive procession including NSW Premier McGirr, Lord Mayor Purdue and Catholic Bishop Toohey, filed out of the Technical College's Engineering Building onto the huge bitumen forecourt. Around 300 Newcastle citizens - formally attired in serge suits, heavy dresses, felt hats and gloves - were sitting on wooden chairs in the bleak forecourt, with a crowd surrounding them in the December sunshine.

Reaching the dais before the main entrance to the College, politicians, academics and religious leaders arranged themselves behind a wooden table on which was spread one quarter – the Union Jack quarter – of a large Australian flag. Press flashbulbs popped. To the left of the dais, a short bald man – the conductor of a now long-forgotten local orchestra – waved a long baton and the strains of God Save the King floated across the crowd.

Premier McGirr addressed the Newcastle citizens, saying prophetically that men from the workshops and factories of Newcastle would pass through the portals of the University College to eventually aid industry and Australia. The Education Minister Heffron said the professional and lecturing staff would be of the highest quality. The future of the College - as well as the intelligent and loyal support of the people of Newcastle - depended on them, he said.

Some of Newcastle's citizens were concerned that the University College would be a technological and not an academic institution. The Lord Mayor, Alderman Purdue, said he hoped that Newcastle would have an academic university within a year and he saw the establishment of the University College as a step toward this. The following day, the Newcastle Morning Herald editorialised that "the establishment of an academic university would be the coping stone of the education system that the State Government has set up in the north".

The citizens of Newcastle who urged that an academic institution be established in Newcastle didn't have long to wait. In 1954, Irish historian Dr James Auchmuty arrived at the Newcastle University College – a colourful academic ringmaster and powerbroker who, perhaps more than anyone else, was responsible for the beginning of university traditions and life in Newcastle.
Educational CD-ROM launched

Hunter teachers and engineers gathered at the University last month to formally launch and celebrate the successful release of the educational CD-ROM 'Engineering Our Future' to all 3050 high schools nationwide.

Designed for science and technology students in Years 7 to 9, the CD-ROM (which is free of charge) resulted out of concerns expressed by local teachers and engineers that classroom resource materials were limited in this area.

"What we’re doing is giving teachers the tools to present engineering, science and technology concepts in an interesting and exciting way," says Professor Adrian Page, Dean of the Faculty of Engineering at the University of Newcastle.

“We hope the CD-ROM will also help teachers address the recent decline in secondary students studying higher level science and mathematical subjects”.

A number of hands-on workshops are being conducted throughout northern New South Wales by the Institution of Engineers, Australia and the University to ensure that teachers understand the value of 'Engineering Our Future' and how to use it in the classroom.

Teachers will be given an overview of the CD and its units, and will also have the opportunity to test out some of the final design projects in a fun, friendly and non-threatening way.

As a result of the workshops, it is hoped teachers will feel confident and capable of incorporating the material into their classroom activities straight away.

Custodians of the Soil

A book by Dean of the Faculty of Arts Professor John Ramsland about the Aboriginal-European relationships in the Manning Valley from 1770 to the present was launched at Taree last month.

Custodians of the Soil explores the destructive impact of European settlement on Aboriginal society, culture and land possession, documenting relationships from the first fleeting contact with Cook’s Endeavour in May 1770 into the 21st century. It is the first book to consider such relationships in a regional and local setting based on primary source material, including oral testimonies, contemporary local newspaper accounts, government reports and documents, diaries, biographies and personal correspondence.

In a foreword to the book, Chairman of the Centenary of Federation Committee of Greater Taree City Council, Cr Eric A Richardson, says that while it is a product of the surge towards Reconciliation, Custodians of the Soil was born during Professor Ramsland’s writing of The Struggle Against Isolation, a history of European settlement in the Manning Valley, in 1987.

“As he collected material for his bicentennial history, Professor Ramsland became aware of another untold story... It was the largely ignored contribution... of the Indigenous people who were living in the Valley when the white men arrived,” Cr Richardson says.

“It will open the eyes of many of the present generation to the fears and injustices of the past and will hopefully provide a ‘roadmap’ that will help our communities find their way through the minefields of mistrust, misunderstanding and intolerance to a better future.”

Custodians of the Soil is John Ramsland’s seventh book and includes an Introduction by Henry Reynolds, a famous historian of Aboriginal Australia. It was launched by the Mayor of Taree, Cr Mick Tuck at the Uniting Church in Taree on November 30.

Caption: Cover design by Birpai artist Russell Saunders

etcetera

To let

Merewether - fully furnished brick house available from 8 Jan – 30 June 2002. Three bedrooms, lounge room, dining room, family room, two bathrooms, reverse cycle air conditioning/heating, quiet area, 10 min walk from Merewether beach. Suit sabbatical visitor with family. Fully equipped with TV, crockery, dishwash and laundry facilities, $450 per week. Contact Scott on extension 6059.

Adamstown Heights – lovely family home set in a quiet leafy street a pleasant walk from Adamstown. Three bedrooms, large sunroom, lounge, dining and family rooms – renovated with polished floorboards. Unfurnished but includes some built-ins and a dishwasher. Lovely ambience for only $200 per week – short or long lease available. Call Kim on 49562829.

The Commonwealth Bank at the Callaghan campus will be closed from 25 December 2001 to 1 January 2002 inclusive (Public Holidays and University concession days). The ATM will still be operational as will NetBank and the Customer Service number 132221. All other local Branches will be open for your convenience (apart from the gazetted Public Holidays).

Name and address corrections for the Uninews database should be emailed to the editor on prldb@alings.newcastle.edu.au. Although the mailing list is updated monthly with advice from Human Resource Management and returned labels from the previous issue, sometimes mistakes slip through the cracks and we would like to hear from you if you have any database information.
Award winning building opened

Chancellor Ric Charlton officially opened the University's multi-award winning Student Services Centre on October 20th.

Adapted from a mid-1970s gym, the building retains the original polished basketball courts and a series of rooms which look like the old gym. The building's modern design makes use of natural light and high ceilings. The design maximizes the use of natural light and a working court, the building is an excellent model of sustainable design and was the recipient of the 2001 Hunter Region Design Award in the sustainable development category. The recycled gymnasium also won the 2000 Australian Institute of Architects award for building excellence in addition to other.

The building was designed by University Architects from Physical Planning and Estates, which won the overall award in the Lower Hunter Civic Design Awards for its work on this and other projects on campus. Documentation was by Sheehan Smith Architects and construction by Storch.

University Senior Architect Planner Mike Pearse said the building uses half the energy of buildings of comparable size and type on campus, including some built in the past ten years.

Vice-Chancellor Roger Holmes, far left, with Chancellor Ric Charlton celebrating the occasion with students.

Sheet-metal external earthquake brace structural sun shades, which are aimed to keep out the summer sun and bring in the winter warmth, were also maintained light and airy.

The building's ventilation is controlled by a computerised Building Management System which tracks prevailing outdoor conditions, automatically opening and closing windows and vents to maintain internal air quality and ventilation when the weather is appropriate. Air is switched to air conditioning when needed. Natural gas options provide winter heating through the air conditioning. The building is a university of great student services.

Chancellor Ric Charlton officially opening the Centre.

university victorious again

One of two University Unitones teams won the mixed Corporate Team category in the 2001 Race for Research, held on the Newcastle Foreshore on October 21.

The second team, who defended the title they have held in the women's Corporate Team category since 1999, were this year beaten into second place. The five kilometre fun run/walk, an annual event organised by the Breast Cancer Institute of Australia, this year attracted more than 1,750 competitors. A number of University staff also competed individually.

Funds raised from the event are used by the Breast Cancer Institute to raise awareness, promote early detection and advance research for Breast Cancer. In 2001 this amounted to $25,000.