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News from the University of Adelaide

Spring/Summer 2014 | FREE publication

# BRICKS AND MORTAR: AUSTRALIA'S HOUSING CHALLENGES

Uni of Adelaide soars up global rankings tables

Working towards a secure food future





#### **INSIDE THIS EDITION OF ADELAIDEAN**

The University of Adelaide has dramatically risen up all three leading global rankings tables; we find out what's behind the impressive results.

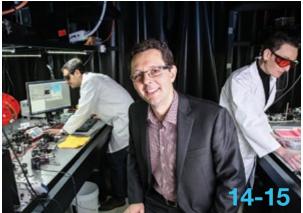
We also delve into the story behind a recent trip to the Iron Triangle that not only benefits students, but also offers far reaching positives for the Port Augusta community.

Also in this edition, we talk to Dr Julia Miller about her innovative short story video series that takes learning English to a whole new, and amusing level.

To view online versions of current and past editions of Adelaidean visit adelaide. edu.au/adelaidean

# >ADELAIDEAN







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#### **RANKINGS SUCCESS**

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# UNIOF ADELAIDE SOARS UP GLOBAL RANKINGS TABLES 2014 HAS SEEN THE UNIVERSITY OF ADELAIDE ACHIEVE IMPRESSIVE

RISES IN ALL THREE OF THE LEADING GLOBAL RANKINGS.

The most dramatic leap upwards was in the Times Higher Education rankings, released in October. Adelaide moved up 45 places to claim 164th spot; the greatest rise of any Australian research-intensive university.

In July, the Academic Ranking of World Universities (produced by the Shanghai Jiao Tong University) ranked Adelaide as a top 200 university. Adelaide also fared extremely well in the QS rankings, released in September, which recognised the University in its top 100.

Professor Mike Brooks, Deputy Vice-Chancellor (Research) at the University of Adelaide, couldn't be more pleased with the results.

"It's been tremendous to move into a higher band in each of the world's three major ranking schemes," said Professor Brooks. "The results are especially good when we remember that there are around 17,000 universities in the world, so we're consistently in the top 1%."

Professor Brooks believes that the improvement in rankings comes as a result of the University's sustained commitment to excellence and its ability to generate world-class, influential research contributions.

"A commitment to excellence is precisely what the University's strategic plan affirms," said Professor Brooks.

"While some of the Plan's specific initiatives, such as stimulating interdisciplinary research and increasing the number of PhD student scholarships, will take time to bear fruit, others such as the appointment of additional top-tier researchers and publishing more outcomes in prestigious academic journals, are already paying off," he explained.

"Our aim is to be in the top 100 of the Shanghai Jiao Tong University ranking within the decade." ♥

#### ΡΗΟΤΟ

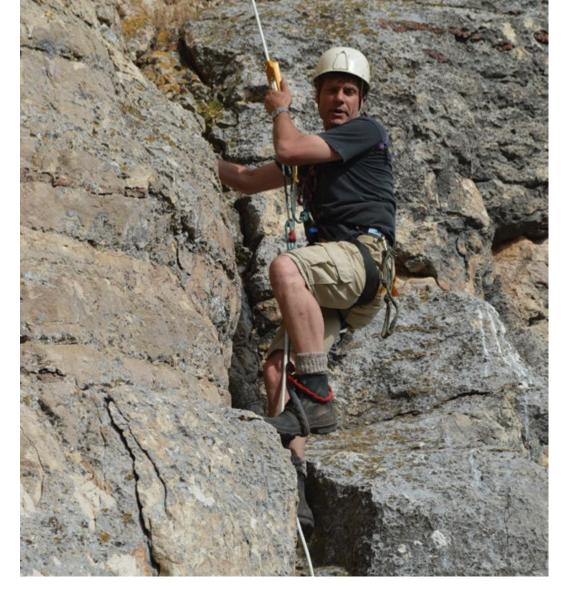
Professor Mike Brooks. Photograph: Roy Van Der Vegt, The Advertiser

"It's been tremendous to move into a higher band in each of the world's three major ranking schemes."

# ARCFELOWSHIPOPENS DOOR TOOPENS DOOR TOINTERNATIONALEXPERTISE

DIRECTOR OF THE AUSTRALIAN CENTRE FOR ANCIENT DNA, PROFESSOR ALAN COOPER, HAS BEEN AWARDED A 2014 AUSTRALIAN RESEARCH COUNCIL LAUREATE FELLOWSHIP.

Contration .



"The workshops are a great opportunity for our team to gain invaluable skills and knowledge from leaders in their field."

#### PHOTOS

Professor Alan Cooper conducting fieldwork in the Natural Trap Cave in Wyoming

The \$2.7 million funding over five years will be used to support his human evolution research program whereby ancient microbiomes and genomes are used to reconstruct human history. It will also give his team of early career researchers the unique opportunity to train under international experts in ecology and evolutionary biology.

"It was a great relief to be awarded the Fellowship," said Professor Cooper. "It's made it possible to plan long term strategies for our research. It has also enabled us to maximise relationships with international colleagues by bringing them here to Australia to work with us at the University of Adelaide and share their knowledge with our emerging researchers."

Professor Cooper specialises in using ancient DNA to record and study evolutionary processes in real time. His research aims to advance knowledge of the processes and history behind today's distribution of humans and the bacteria they carry.

The Fellowship funding will enable Professor Cooper to progress his studies into using combined signals of bacterial, genomic and climate data to reconstruct the impacts of migrations, changes in diet, environment and health in various regions of the world. His team will also focus on creating a program to map the genetic history of Indigenous Australia and assess the impact of colonisation on the world's native peoples.

A key component of Professor Cooper's program will be a series of workshops, led by world-renowned palaeoecology specialists.

"We'll work on some data sets that we've generated as part of the project but principally the workshops will be about training our team to use software and techniques that the international tutors have developed, which can then be applied to global data sets," explained Professor Cooper.

"Young Australian researchers are relatively isolated from exposure to international experts. The workshops are a great opportunity for our team to gain invaluable skills and knowledge from leaders in their field."

# DOORWAY TO THE SUN AND STARS

THE OBSERVATORY AT THE UNIVERSITY OF ADELAIDE IS PART OF THE OLD ASTRONOMY BUILDING. WHILE MANY THINK IT STANDS NOBLE, BUT IDLE, THE REALITY IS THAT IT PLAYS A VALUABLE ROLE IN TEACHING AND RESEARCH AT THE SCHOOL OF CHEMISTRY AND PHYSICS.

In teaching, the observatory is predominantly used by students enrolled in the Bachelor of Science (Space Science and Astrophysics.) First-year students undertake introductory practicals in solar and deep-sky imaging in the dome, while those in second year can utilise the observatory to collect data for their research projects.

"All of the students do something in the observatory at some stage of their learning," said Dr Paddy McGee from the School of Chemistry and Physics. "It's a fantastic resource to have on site in terms of developing hands-on skills in astronomical observation."

The observatory is also used in research conducted by the school's High Energy Astrophysics Group for collaborative, international observing campaigns.

"Areas of study include variable stars and exoplanets," said Dr McGee. "We have also conducted monitoring of targets in support of larger facilities such as the HESS gamma-ray telescopes in Africa. If we see a target in outburst, we can advise them to take a look later that day when night falls in Africa".

While Dr. McGee acknowledged that the location of the observatory, in the middle of town, would not ordinarily be considered ideal, he said this does not prevent obtaining good-quality data.

"Attaching modern detectors to the telescope really opens up the opportunity to do high-grade research in such an urban environment," he explained.

With a lineage extending back to Charles Todd, a former Government Astronomer, the observatory has a long history. It has been used in teaching for some 40 years or more.

The observatory is an important and iconic on-campus resource that continues to deliver benefits to students and researchers alike. ■

"It's a fantastic resource to have on site in terms of developing hands-on skills in astronomical observation."

#### PHOTO

Dr Paddy McGee with students, Alex Kyriacou and Rebecca Blackwell

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# WOMEN'S FELLOWSHIP PAVES THE WAY FORWARD

THE UNIVERSITY OF ADELAIDE BARBARA KIDMAN WOMEN'S FELLOWSHIP IS DESIGNED TO SUPPORT FEMALE ACADEMICS TO ENHANCE AND PROMOTE THEIR CAREERS. FOUR RESEARCHERS FROM VARIED DISCIPLINES ARE WORTHY RECIPIENTS OF A 2014 FELLOWSHIP.



Dr Karla Helbig is using her Fellowship to fund additional research support for her work into immune responses to viruses.

"My research involves looking at host proteins that are up-regulated when a virus infects a cell and how those proteins might relate to controlling viral infections," explained Dr Helbig. "The funding has allowed me to pay for a part-time research assistant to assist me with laboratory studies."

Laboratory studies are critical to progressing Dr Helbig's research and will help to promote her research in high impact publications.

For Fellowship winner, Dr Heather Bray, the funding has meant that she can recommence her research career. Dr Bray's work focuses on understanding community attitudes to the use of science and technology in agriculture and food production.

"I'm so grateful for the Fellowship," said Dr Bray. "It's allowed me to re-enter research with a strong support network in terms of my personal branding, career direction and writing support. "It's also given me the opportunity to network with international researchers."

A Barbara Kidman Women's Fellowship has also greatly assisted Dr Lynn Ward, whose research centres on ageing, with a particular focus on ageing well, cognitive functioning, resilience and wellbeing.

Dr Ward's funding has been put towards training in longitudinal data analysis techniques, enhancing links with others in her field and strengthening her publication record. Some of the support will also be used to apply for grant funding to maintain momentum for her research once the Fellowship comes to an end.

A Senior Research Fellow in Gender Studies and Social Analysis, Fellowship winner Dr Tanya Zivkovic employed a research assistant for her current work on obesity and social disadvantage, enabling her to pursue a new research focus on Advance Care Directives in Australian migrant communities.

"As an early career researcher with a young child it is difficult to develop an independent research profile," explained Dr Zivkovic. "I am very grateful for this opportunity to further my own research trajectory." ■

#### PHOTO LEFT TO RIGHT

Dr Tanya Zivkovic, Dr Karla Helbig, Dr Lynn Ward and Dr Heather Bray.

Click here to view video!

# A NEW TAKE ON TEACHING ENGLISH

#### DR JULIA MILLER HAS COMBINED HER INTEREST IN INNOVATIVE TEACHING METHODS AND TEACHING ONLINE TO CREATE A CLEVER, NEW ENGLISH LEARNING PLATFORM.

Her English for Uni website, which went live in 2012, offers a range of engaging and amusing videos aimed at teaching difficult grammar and academic writing concepts.

The short story video series provides entertaining examples and explanations of how, and why, English is used in certain ways. The site also provides associated worksheets and feedback to extend the learning process.

Dr Miller and her team have designed the website for anyone who wishes to progress their English skills. It is suitable for a range of users, from teachers and people learning English as an additional language, through to anyone who wants to refine their grammar skills.

"It's an interesting, engaging and effective way to learn English that is based on research," said Dr Miller. "The students really seem to like it because it's so creative."

The video series covers topics including the use of articles and passive voice as well as essay writing and oral presentation skills. While these subjects are usually ones that students shy away from, the videos make them simple and fun to learn.

The English for Uni site currently achieves around 1,000 page views per week. Dr Miller is looking forward to the click rate heading much higher as a result of an increased presence on social media.

Thanks to a \$220,000 Office for Learning and Teaching Grant from the Federal Government, Dr Miller is nearing completion of a new selection of videos to add to the site's current collection. The new videos include "With a Revolver in the Library", "You've Got Talent" and "If You Love Me," which is loosely based on a popular Chinese dating show, currently airing on SBS.

"We're hoping that 'If You Love Me' will be really popular in China," said Dr Miller. "We're going to contact the people who make the show and tell them about it, once it's ready."

Dr Miller is quick to acknowledge that the project is the result of a concerted University of Adelaide team effort. Major contributors include Dr Fernando Marmolejo-Ramos from the School of Psychology, Kayoko Enomoto from the Discipline of Asian Studies, the School of Education's Richard Warner and Associate Professor Ben McCann from the Discipline of French Studies.

Dr Miller plays a role in all of the videos. Many international students, including three PhD candidates from the School of Education, also have starring roles. In addition, numerous other people from around the University of Adelaide have given up their time to assist in whichever way they can.

The website is free to access and definitely worth a visit. Take a look at **www.adelaide.edu.au/english-for-uni** ♥

"The students really seem to like it because it's so creative."

ΡΗΟΤΟ

Dr Julia Miller in character as Ms Parrott

# DELVING DEEPER INTO BONES

With an impressive history of research that spans over a century, the University of Adelaide's Discipline of Orthopaedics and Trauma enjoys a proud global reputation. Past and present research endeavors extend from new ways to perform operations, right through to more intricate investigations into molecules and cells.

One of the Discipline's latest laboratory investigations is based on learning more about osteocytes, the cells that live inside bone. In recent years, these cells have become of vital interest, as they have been found to perform a number of important roles both within the bone as well as influencing other organs of the body.

As a result of flexing, bone tissue develops microdamage in its matrix. To prevent catastrophic fracture, damaged bone is targeted for removal by cells called osteoclasts, and then rebuilt.

In aiming to find out more about how this process works, a team, led by Associate Professor Gerald Atkins, has focused its research on sclerostin, one of the molecules osteocytes make. The research has been funded with support from the National Health and Medical Research Council. The team has studied the biology of sclerostin, including how it works, the cells it acts on and the role it performs. They have discovered that in addition to blocking the formation of bone, sclerostin also actively encourages the bone removal action of osteoclasts.

This research has been important in progressing understanding of how bone is remodelled.

"Our findings with sclerostin are a big leap forward that has given the group a great deal of international recognition," said Professor David Findlay, Professor of Orthopaedic Research.

The research is particularly important given that blocking antibodies has been developed based on earlier knowledge that sclerostin is a negative regulator of bone formation.

"You really need to have the whole picture of what sclerostin does if you are going to roll out treatments based on blocking its actions," said Professor Findlay.

In addition to its groundbreaking research into sclerostin, the Discipline of Orthopaedics and Trauma is currently undertaking some "very exciting" clinical work, according to Professor Findlay. This work includes new methods of fracture repair, based on their breakthrough technology that, for the first time, enables measurement of the strength of a healing fracture.

"Our findings with sclerostin are a big leap forward that has given the group a great deal of international recognition."

# UNIQUE COURSE BENEFITS STUDENTS AND REGIONAL COMMUNITY

IN EARLY OCTOBER A GROUP OF 20 SCHOOL OF ARCHITECTURE AND BUILT ENVIRONMENT (SABE) STUDENTS HEADED TO PORT AUGUSTA TO COMMENCE THE SECOND STAGE OF THE PORT AUGUSTA OUTREACH STUDIO COURSE.

The course, which was offered for the first time last year, is a collaborative, co-design process undertaken by fourth-year Master in Architecture, Master in Landscape Architecture and Master in Planning students. It is designed to give students the opportunity to apply their knowledge and professional design skills to a real design project while stimulating positive change in regional communities.

Thirty-two SABE students were involved in last year's project which culminated in the delivery of an innovative campus growth design masterplan for Port Augusta's secondary school and associated community areas. The plan was well received by both the school and community, while SABE students gained invaluable hands-on experience and knowledge.

"The studio has been a great learning opportunity where students have had to tackle and deliver an actual project to real deadlines," said Professor George Zillante, SABE Head of School. "The course requires them to investigate the area, interview people and assess community requirements, before creating a plan that answers genuine needs and issues."

This year's course group has built on the ties established with the Port Augusta community and council last year. The students, in consultation with local Aboriginal elders, have been tasked with planning a community centre for the Port Augusta Aboriginal Community Engagement Group. They have just arrived back from their first visit, armed with information, ideas and enthusiasm. While the course offers undeniable advantages for SABE students in terms of career preparation, it also offers benefits that extend much further.

"Both this and last year's groups have included a large number of international students," Professor Zillante said. "Working in Port Augusta has given them a fantastic opportunity to experience Australian culture and the outback in a unique way."

Professor Zillante expects the Port Augusta collaboration to be a five-year process, with the potential to leave ar indelible mark on the town and its people.

"There is incredible opportunity to embrace the Aboriginal culture and make it something really strong for the whole community to embrace," he said. ■

"The studio has been a great learning opportunity where students have had to tackle and deliver an actual project to real deadlines."

# CENTRE LAUNCH MARKS LEAP FORWARD FOR SCIENCE

THE AUSTRALIAN RESEARCH COUNCIL'S (ARC) CENTRE OF EXCELLENCE FOR NANOSCALE BIOPHOTONICS (CNBP) WILL BE OFFICIALLY LAUNCHED AT THE UNIVERSITY OF ADELAIDE ON 21 NOVEMBER WITH LOCAL, NATIONAL AND INTERNATIONAL DIGNITARIES AMONGST THE INVITED GUESTS.

The launch will be followed by a three-day scientific retreat where students, scientists, commercial partners, international collaborators and the International Science Committee will learn more about the innovative projects planned for the ensuing 12 months of the seven-year program of research.

The CNBP will bring together physicists, chemists and biologists to control nanoscale interactions between light and matter in order to investigate the nanoenvironments within living organisms.

According to Professor Mark Hutchinson, Director of the ARC Centre of Excellence for Nanoscale BioPhotonics at the University of Adelaide, the launch of the new Centre will open the door to a new wave of scientific discovery.

"Having all the scientific disciplines working alongside one another at the Centre offers opportunities like never before," said Professor Hutchinson. "We will create new generation sensors that, in turn, create new scientific fields."

The new generation sensors will have the capability to operate remotely within living tissue, such as in the brain, within a blood or beside a fertlising human egg. The sensors will also have the ability to take measurements repeatedly over time and in a volume, one billionth of a litre, never before possible. And, according to Professor Hutchinson, that's merely the start of what promises to be a game-changing future for science. Since being announced in December 2013, the opening of the Centre has been eagerly awaited, not the least of which by those who want to play an integral part in its story. 20 vacant positions have been answered by more than 1,000 International researchers for positions at nodes based at the University of Adelaide, Macquarie University and RMIT.

"We have now started hiring an amazing group of multitalented people," said Professor Hutchinson. "We have people with PhDs in disciplines ranging from theoretical physics to neuroscience to surface-chemistry. The fact that we will all work together is extremely exciting."

The thrill of what's in store is not lost on the Centre's early career researchers, who are eagerly looking forward to the opportunities ahead.

"It's going to be a balance between a kid in a candy store and a bull in a china shop for them, and that's the best way to be," laughed Professor Hutchinson. ■

"Having all the scientific disciplines working alongside one another at the Centre offers opportunities like never before."

#### PHOTO

Professor Mark Hutchinson

Millio Manage

LEFT Professor Anton van den Hengel

# IMAGING SYSTEM ADDRESSES GLOBAL PATHOLOGY NEED

The Australian Centre for Visual Technologies is preparing for one of its core projects, the Automated Plate Assessment System (APAS®), to head into its first clinical trial.

APAS®, developed for ASX listed company LBT Innovations, is a fully-automated, microbiology imaging system. The system speeds up the collation, reading and sorting of agar plates by replacing the need for lab technicians to manually inspect each plate for bacterial colony formation.

Published studies have shown that the technology can match the plate screening capabilities of experienced microbiologists.

"With hundreds of plates being assessed every day, manual plate reading is very repetitive and it's hard to keep the accuracy up," said Professor Anton van den Hengel, Director of the Australian Centre for Visual Technologies at the University of Adelaide. "Also, the cost of plate processing limits the number of tests that can be done. "By automating part of the process, more plates can be read, processing becomes less expensive and accuracy is improved."

Another significant advantage of APAS® is that it allows microbiologists to focus their attention on clinically significant cases, dramatically reducing the turnaround time for critical lab results.

Professor van den Hengel and his team have now completed intellectual property development for the system and are currently assisting engineers to prepare software. Once the software is ready, LBT will conduct two clinical trials in Australia and a trial in the US, in order to make a submission for approval of APAS® by the US Food and Drug Administration (FDA).

With FDA approval, the technology has the capacity to dramatically improve the plate assessment capabilities of hospitals throughout the world.

"There has been a lot of enthusiasm for the technology already," said Professor van den Hengel. "We're confident that, once commercialised, APAS® will make a significant impact on the global pathology market." ■

"We're confident that, once commercialised, APAS® will make a significant impact on the global pathology market."



# WORKING TOWARDS A SECURE FOOD FUTURE

Professor Kym Anderson, George Gollin Professor of Economics at the University of Adelaide, has recently been appointed as President of the Policy Advisory Council of the Australian Centre for International Agricultural Research (ACIAR).

Professor Anderson will also become Chair of the Board of Trustees for the Washington DC-based International Food Policy Research Institute as of 1 January, 2015.

"The two are very complementary appointments coincidentally occurring at the same time," explained Professor Anderson. "Both agencies have similar objectives, namely to reduce poverty and hunger in developing countries."

ACIAR is part of Australia's aid program. It focuses on partnering with developing countries to help improve their agricultural productivity through research. It also offers significant benefits to Australia.

PHOTO Professor Kym Anderson

"It's a real win-win aspect of our aid program," said Professor Anderson. "It assists developing countries while simultaneously helping Australian farmers by improving their productivity through our research."

Professor Anderson's position with the International Food Policy Research Institute (IFPRI) also centres on boosting global food security.

"IFPRI is a very important agency for achieving sensible policies affecting food and agricultural markets around the world," said Professor Anderson. "It is part of the consortium of 15 international agricultural research centres that are supported by governments of rich countries plus private foundations. ACIAR is the arm through which the Australian Government contributes to IFPRI and the other 14 centres around the world."

Professor Anderson explained that "Being associated with the two organisations gives me an opportunity to see things from both points of view: that of the donor of funds on the one hand, and of the recipient of funds on the other." At the same time, he is serving on an expert panel of the Australian Council of Learned Academies that is focusing on Australia's agricultural future, and as a Commissioner on Murdoch University's Commission on Food Security, Trade and Partnerships in the Asia Pacific region.

Professor Anderson will draw on a lifetime of knowledge and experience in fulfilling his new roles. Since graduating from Chicago and Stanford Universities he has spent his career researching international trade and agricultural development economics from his academic bases at the University of Adelaide and the Australian National University. He has also been a lead researcher at the GATT (now the World Trade Organization) in Geneva (1990-92) and the World Bank in Washington DC (2004-07). He has published widely in the area of wine economics and globalisation. ● "It assists developing countries while simultaneously helping Australian farmers by improving their productivity through our research."

# BRICKS AND MORTAR: AUSTRALIA'S HOUSING CHALLENGES

ASSOCIATE PROFESSOR EMMA BAKER WILL PROGRESS HER RESEARCH ON AUSTRALIA'S CURRENT HOUSING CRISIS, THANKS TO AN AUSTRALIAN RESEARCH COUNCIL'S (ARC) FUTURE FELLOWSHIP.

The School of Architecture and the Built Environment researcher will work on developing a theoretical framework for focusing on Australians who experience multiple housing problems.

The ARC Fellowship funding will provide \$661,000 over four years. The support will be used to identify who most is affected by multiple housing problems, how this relates to individual health and wellbeing and the ways in which governments can best respond.

"Many Australians have housing that is unaffordable, poor quality, or unstable, however what you might not realise is that it is often the same people with not one, but many housing problems," said Associate Professor Baker. "My research will explore the combined effects of multiple housing problems and ways in which to improve the lives of the people affected by them."

Associate Professor Baker's core focus will be on groups who are particularly susceptible to multiple housing problems. This section of the community is often faced with housing that is not only unaffordable, but also in very poor condition. The instability of short term lease contracts also adds to the problem. Associate Professor Baker believes that a chronic undersupply of affordable housing in the private sector has played a major role, alongside a lack of public housing.

"Basically, Australia's housing safety net is shrinking," she said. "Traditionally, public housing existed for people who couldn't find secure, affordable accommodation in the private rental market. Today, public housing is limited to people with high and complex needs.

"So, there is now a large section of the community, who previously would have been placed in public housing, that is left to fend for themselves in an increasingly [tight] private market."

With the last Census figures estimating that over 100,000 Australians experience homelessness every night, Associate Professor Baker's research is of vital importance to a nation that appears to be lost for answers.

"Ultimately, I hope to start a national conversation about multiple housing problems and contribute to the development of responses that improve outcomes for some of Australia's most vulnerable people," said Associate Professor Baker.

"My research will explore the combined effects of multiple housing problems and ways in which to improve the lives of the people affected by them."

#### рното

Associate Professor Emma Baker M

#### PHOIO

Associate Professor Dale Stephens CSM



# FACULTY ARMED TO MEET INCREASE IN DEMAND

WHEN ASSOCIATE PROFESSOR DALE STEPHENS CSM COMMENCED HIS TEACHING ROLE WITH THE UNIVERSITY OF ADELAIDE'S LAW SCHOOL IN EARLY 2013, HE HAD NO NOTION OF JUST HOW POPULAR HIS COURSES WOULD TURN OUT TO BE.

Associate Professor Stephens teaches courses in international law, national security law and military law. He will soon increase his program to cater to overwhelming demand.

Last year, 24 students undertook Associate Professor Stephens' international humanitarian law course. After being asked to increase student numbers for this year, Associate Professor Stephens raised available spaces to 100. Within six minutes, enrolments were full. Interest in his other courses has been equally impressive.

Part of the surge in demand has stemmed from the School winning the contract to train Australian Defence Force (ADF) lawyers in advanced areas of military law, in conjunction with the Australian National University (ANU). In addition to fundamental training in operations, administrative and criminal law, the University of Adelaide and ANU plan to offer an increasing number of electives to students both from within the military and outside of it. "Next year, the University of Adelaide's Law School will launch a new research unit on military law and ethics, to enable students to focus on their areas of interest," advised Associate Professor Stephens. "From cyber warfare and autonomous weapon systems to strategic space law and humanitarian protection in armed conflict, the areas of research interest are endless."

Associate Professor Stephens said that the rising interest in military law comes partly as a result of the ADF's constant activity over the last 20 years, and the fact that corresponding law that applies to operations has grown exponentially over that time. In fact, he states that law saturates the modern battle space.

"With signing and ratifying treaties, Australia has become bound by a significant amount of treaty law as well as corresponding customary international law," he explained. "Equally there has been a number of domestic legal frameworks created that reflect and implement this international law, or that have otherwise been developed that apply to military operations.

"People are beginning to understand the significance of law in restraining violence and shaping outcomes, and want to learn more."

Associate Professor Stephens is looking forward to the opportunities that come with increased demand for his courses.

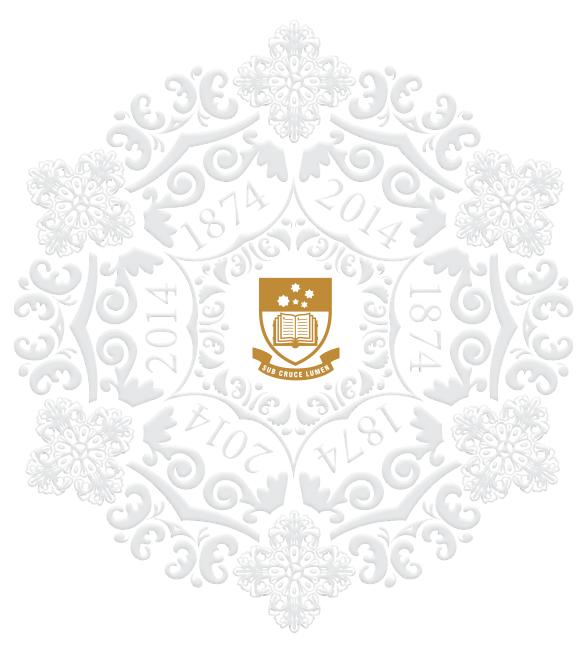
Reflecting on his 20 years of previous military service, Associate Professor Stephens says that there have been many legal, moral and ethical issues encountered in the conduct of operations.

"Having the capacity to explore and research these issues more deeply at the University of Adelaide is a wonderful opportunity," he said. "It's also very encouraging to have lots of very impressive young minds who are keen to ask the same questions that I've been asking for a long time."

"Having the capacity to explore and research these issues more deeply at the University of Adelaide is a wonderful opportunity."

# Carols on Campus

## Thursday 18 December 2014 at 7pm



Bring your family and friends to the North Terrace campus and join the University's choir for a program of Christmas music, readings and traditional carols. Featuring a formal University of Adelaide academic procession, soloists and musicians from the Elder Conservatorium of Music and the magnificent Bonython Hall organ.

#### Enquiries: 08 8313 7511

#### Bonython Hall, North Terrace Campus, University of Adelaide

We invite you to bring a book or toy for the *Gifting Tree*, in support of The Smith Family.

### www.adelaide.edu.au/carols

adelaide.edu.au

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