



THE UNIVERSITY OF
SYDNEY

UNIVERSITY OF SYDNEY: SCHOOL OF GEOSCIENCES

Exciting changes for 2018

The Head of the School of Geosciences, Professor Phil McManus, is excited about the educational improvements to commence in 2018. "The new curriculum is a big opportunity for academic disciplines such as geography, geology, geophysics, environmental studies, marine science and our teaching in sustainability," said Professor McManus. "We welcome more students to learn about these important subjects in new and creative ways".

GEOS1001 Earth, Environment and Society

GEOS1001 is the main gateway for students wanting to learn more about geography, geology, geophysics, environmental studies, marine science and sustainability. It is a fantastic and very popular unit of study, with enrolments increasing as more and more students realise the planetary challenges we face and the need for innovative and lasting solutions. The lecture program is modularized and built around the big questions of the future of life on planet Earth. Material presented through the semester has the goal of providing an overarching perspective on the future of the planet, whether that relates to its geological evolution, its changing environment, or the fate of its people.

2018 sees the introduction of our new **Open Learning Environment units on Geographic Information Systems**. These units will be available in a zero credit point and a two credit point version each, to enhance undergraduate students' spatial literacy and cross-disciplinary problem solving capabilities, providing graduates with a real world skills advantage when they graduate.

Professor McManus strongly supported recent comments by Dr. Eleanor Bruce about the importance and scope of these new units of study. "Geographic Information Systems – GIS – has a critical role in addressing major challenges facing humanity," explained Dr Eleanor Bruce, from the School of Geosciences. "GIS is having an impact on our environmental future, with applications including monitoring biodiversity loss, ocean acidification, land degradation, and natural hazards planning. This emergent technological platform is impacting our future social lives, contributing to the planning of 'smart' and 'digital' cities. GIS is also enabling

assessment of our water, food and energy security, and the role of local environments for population health, for example in the debate on healthy neighbourhoods and epidemiology, location-based analytics and in corporate responsibility," said Dr Bruce. These OLEs will equip students from across the University with a broad, interdisciplinary skill set in GIS principles, geographic theory and data problem solving strategies.

These initiatives will enable the School of Geosciences to maintain its position as a recognised leader nationally and internationally in research and education. Geography was ranked 17th in the world in 2017. Research in Geology and Geophysics was evaluated as well above world standard in the most recent ERA exercise. "The arrival of new academic staff to join our illustrious team, the creation of new academic units and the restructuring of the curriculum across the entire university enables us to better educate more undergraduate and postgraduate students, and to further improve the student experience" explained Professor McManus. "This will enable our graduates to succeed post-studies in a competitive employment market." The University of Sydney is the top university in Australia for employment.

"Our innovations in the School of Geosciences are designed to improve education and enhance career prospects for our graduates," said Professor McManus. With so many opportunities available in 2018 it's easy to be excited about welcoming new students.

Source

http://www.geosci.usyd.edu.au/news_events/hos2018.shtml



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5 COOL TOPICS YOU CAN STUDY WITH A GEOGRAPHY MAJOR

University of Sydney News
22 August 2017

Geography investigates some of the world's most pressing issues

While geography facts make for excellent trivia, what applications can the subject have in society or in a career sense? We chatted with five University of Sydney geographers to learn more about their fascinating research.

When you think about geography, what comes to mind? If your brain wanders straight to maps, atlases or maybe even the National Geographic store, you're not alone.

But geography is so much more than that. It's the study of people and the earth, so that pretty much includes everything. That's right; geography is concerned with all of it, plants, animals, people, places and the relationships between each of these elements.

For example, a recent study by Sydney undergraduates analysing whether smashed avocado consumption really did affect home ownership revealed some interesting aspects of human geography, prompting coverage in the Sun-Herald including an editorial and feature.

Our geography department is the oldest in Australia and one of the best internationally. Established in 1920 by Thomas Griffith Taylor (who now has a campus building in his honour), the University of Sydney and geography go way back! But better yet, according to QS World University rankings by subject, geography at the University of Sydney is listed at 17 in the world and best in NSW.

Shining the light on the interesting and varied areas of study within the discipline of geography are academics, Phil McManus, Sophie Webber, Bill Pritchard, Josephine Gillespie and Bradley Garrett who have travelled internationally exploring the world we live in.

"One of the reasons geography is such a great discipline is because it spans so many areas. We have people studying the soil and water, cities and history, politics and culture. Often when I meet geographers, I find that they came from other disciplines. Because of its porousness, geography offers opportunities to make connections across boundaries and offers a lot of latitude in terms of research, which is how I have ended up working on such a wide range of topics. Bradley Garrett

FOOD AND NUTRITION SECURITY

Professor Bill Pritchard (Human geographer)

"Geography is fundamentally about the human population and its relationships to the world's natural resources. One of the most important natural resources relates to food, and food will be one of the defining factors of the 21st century," says Bill Pritchard, a professor in human geography.

Pritchard specialises in food and nutrition security in India and Myanmar. He offers some insights into the current state of play for people around the globe.

"At the present time there around 800 million people in the world who don't get enough food to eat each day and we have an obligation to improve their circumstances."

But finding a solution might not be as easy as it seems.

"Growing more food is only half the battle. The bigger challenge is around maintaining the sustainability of the environments that grow food and also having social arrangements that ensure hungry people can get access to food." Professor Bill Pritchard

Pritchard chose to focus his time where our global food problem is most severe.

"I do a lot of my work in India where 21% of the population is hungry and the irony is that people with the highest level of hunger are small holder farmers. My job is to ask why the people growing food are the hungriest."

"To answer this you have to understand how social, economic and environmental factors come together. You need to ask questions like – do Indian farmers grow crops to eat themselves, or do they sell their crops and if they sell their crops do they use the money that they earn to buy food?"

Food security is a topic covered in a number of geography units, particularly in relation to a changing environment as a result of climate change. Each year there are opportunities to travel to India to investigate the food security problem more closely.

THE POLITICS OF PUBLIC SPACES

Bradley Garrett (Research Fellow)

University of Sydney Research Fellow Bradley Garrett is a well-established human geographer with a passion for public spaces. He's particularly interested in the privatisation of community areas and the way that changes how we interact with these spaces. His studies have taken him around the world, but his main body of work stems out of London.

"London was one of the first large cities to embrace a Neoliberal economic model, under Margaret Thatcher, where regulations were relaxed for corporations. That has led to the privatisation of everything from infrastructure to social housing and has become almost the de facto model for new urban development now," Garrett states.

"The politics behind how these spaces are managed and controlled are often hidden from citizens, only revealed when someone is told they have violated the corporate rules. This seems to go against our collective understanding of the importance of public space in cities stretching all the way back to ancient Greece, where the Agora – which literally means 'gathering place' was the centre of public life."

Over the past two years, Garrett has organised protests in London of these pseudo-public spaces and has written a handful of articles in the hope of changing legislation. His work has resulted in both major political parties and the Mayor of London agreeing to push back on future privatisations of public space.

And what about back on home soil?

"Developments like Barangaroo pose interesting questions for urban geographers about ownership and management." Bradley Garrett



For those interested in studying this area more specifically Garrett recommends taking a second year subject – the Geography of Cities and Regions where he teaches students about space, place, territory and region.

ETHICAL HORSE RACING

Professor Phil McManus (Head of Geosciences)

Perhaps one of the more surprising areas of geography is the study of ethical horseracing. Phil McManus, a professor at the University, explains that geography focuses on how humans interact with the world, and this includes animals.

"Research in this area covers topics like breeding, living conditions, and animal retirement. Studies can also cover gambling (i.e. the horse as a vehicle for gambling)." Professor McManus



The jury is still out when it comes to nationwide acceptance of the sport.

"Some people would argue that all horseracing is unethical because it is using an animal for human entertainment. There are variations within Australia. In NSW jumps racing (hurdles and steeplechases) are illegal, but they take place in Victoria and South Australia and have been actively supported by governments in recent years."

"The ethical concern is that there is a higher rate of injury and death in jumps racing than for racing on the flat. In other parts of the world there are concerns about the use of drugs to prevent bleeding (many US states)."

Generally speaking, conditions for horse breeding and horseracing in Australia are very good.

"There are more racetracks per person compared with other parts of the world, and the breeding industry exports horses to many overseas countries. Australia is seen as being well governed, having a high level of integrity and as an important player on the world stage," McManus describes.

But how does horseracing compare to greyhound racing?

"Dogs are smaller, and have more pups than a horse. This makes them more vulnerable to hidden abuse. Many of the issues (except live baiting) in the greyhound industry also apply in the thoroughbred and standard bred industries (e.g. wastage)."

It's important that geographers continue to investigate the industry to ensure best practice, especially in a changing social climate where animal treatment is more than ever of upmost importance. And the industry is already voluntarily changing due to these social pressures.

"Harness Racing Australia has voluntarily agreed that from September 2017, Australian harness racing is banning the use of whips in training and racing. This is a significant world-leading animal welfare initiative." Says McManus.

In second year students are introduced to the thoroughbred industry as part of a virtual fieldtrip to the Hunter Region, which also includes the interaction with industries such as coal mining, coal seam gas and viticulture. One can then progress to complete an Honours year doing research looking at human-animal relationships.

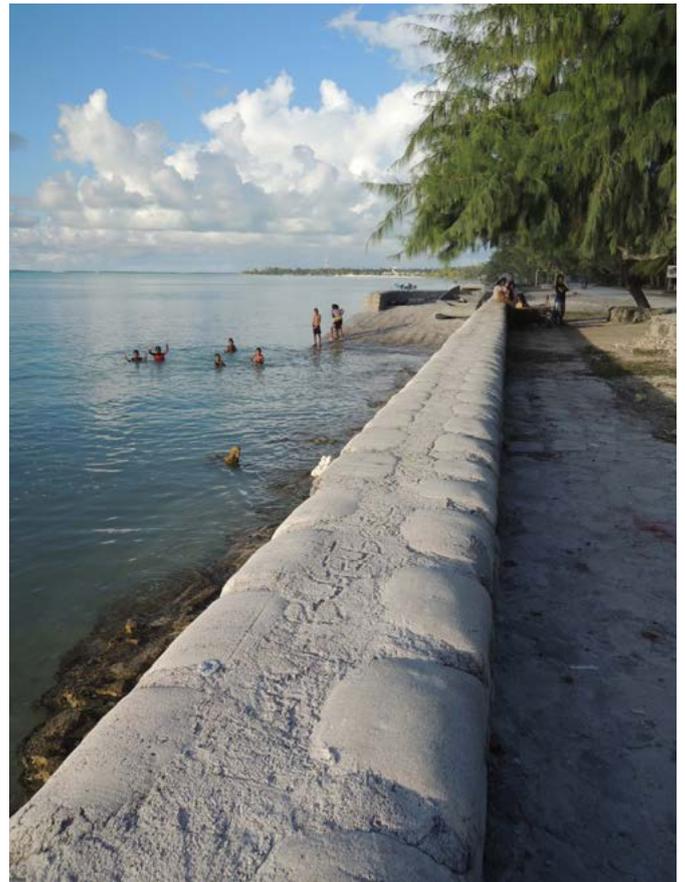
CLIMATE CHANGE

Sophie Webber (Lecturer School of Geosciences)

Sophie Webber, a lecturer in the School of Geosciences conducts research about the politics of climate change adaptation and resilience. She has worked on projects in Jakarta, Indonesia and small islands in the Pacific region that are most vulnerable to change impacts. Her work focuses on the limitations of existing adaptation and resilience policies, including climate services.

"Climate services are packages of climate information that are intended for use in climate policy and climate decision-making. That can include seasonal forecasts, climate projections and scenarios, or decision-making aids and platforms." Webber explains.

In order to have successful adaptation, everyone needs to be well informed. But using markets as a mechanism for communicating between producers and users of climate information is fundamentally flawed. What happens when a vulnerable country or vulnerable person cannot pay to access that information?



"People, communities, governments and businesses need more accessible and actionable information in order to make informed decisions about responding to climate change. For instance, perhaps a civil engineer in the Solomon Islands needs more accessible and more relevant climate projections in order to know how to build the most resilient road infrastructure to withstand the magnitude and intensity of future storms and sea level rises."

The interesting thing about Webbers studies and geography in general is you always need a holistic perspective.

"I think being a geographer means thinking about our situations relationally. In Australia, our climate actions – or lack thereof – have effects that ripple out, with profound implications for countries in the Pacific." Sophie Webber

Webber studied geography at university before finding a career analysing climate change adaptation. First year subjects at University encourage students to think geographically. By second year students are able to apply this way of thinking to environmental and resource management challenges across a host of units.

ENVIRONMENTAL PROTECTION

Dr Josephine Gillespie (Lecturer & legal geographer)

"The areas of geography and law are quite closely intertwined when it comes to environmental protection," says Dr Josephine Gillespie a lecturer at the University. Gillespie is a legal geographer whose research examines the impact and effectiveness of environmental laws, particularly those surrounding world heritage places and wetlands.

Josephine completed her PhD on conservation law in Cambodia. This required her to investigate the translation of heritage laws to local communities and landscapes so they could put in place more effective guidelines to safeguard the landscape.

Under the umbrella of environmental change and protection, Josephine's research is increasingly concerned with the devastating impacts of unparalleled biodiversity loss as a result of the forewarned sixth extinction event."

The sixth extinction event refers to the predicted loss of a wide array of species as a result of a changing environment which is likely to have severely negative affects to our ecosystems.

"To this end environmental protection research within geography is interested in understanding the way in which we can decrease environmental degradation and increase environmental protections across a range of issues in a changing landscape (from increasing sea levels to decreasing dam flows)." Dr Sophie Gillespie



Unauthorized sand mining, Tatai River in the Koh Kong Conservation Corridor, Cambodia Source: Wikimedia Commons

It's incredibly important that geographers weigh in on important environmental decisions given their understanding of people and places. One way Dr Gillespie's work does this is to link human rights to environmental change.

"The linkages between human rights and environmental protection are complex; and while many see these areas as in competition (as in environmental protection laws can curtail individual freedoms by imposing restrictions on human activities) there is a growing narrative that calls for environmental protection and human rights to be seen as complementary."

There are a number of units of study that cover environmental issues including the University's third year subject Environmental Law and Ethics which is coordinated by Josephine herself.

Source

<http://sydney.edu.au/news-opinion/news/2017/08/22/5-cool-topics-you-can-study-in-geography.html>



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Campus life

About us

Research

Alumni & giving

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**We're
changing
education**

See how we're unlearning





Geography Teachers Association of NSW

SENIOR GEOGRAPHY TEACHER CONFERENCE *

Monday 6 November, 8.30am – 3.30pm

**Federation Conference Centre, Heritage Room Level 1
23–33 Mary Street, Surry Hills**

Conference presenters consist of experienced and current teachers of senior geography, HSC markers, academics and GTA Councillors.

SESSIONS WILL INCLUDE:

- ✦ **Critical connections between preliminary and HSC courses**
- ✦ **The Senior Geography Project**
- ✦ **Improving student written responses**
- ✦ **Busting the bands in HSC performance**
- ✦ **HSC topics: current trends, strategies and choices**
- ✦ **The most challenging skills**
- ✦ **Using local resources**
- ✦ **Learning concepts and processes through ICT**
- ✦ **Advice from HSC markers**

There will be Teach / Meet style discussions with a small panel of experts – providing participants with the opportunity to ask questions, share ideas and resources and develop support networks.

COST: GTANSW Members \$240, Non-Members \$290

Morning tea and lunch provided and special dietary requirements catered for.
Coffee and tea available throughout the day.

REGISTRATION: Click to [REGISTER ONLINE](#) for this event



Geography Teachers Association of NSW through the Professional Teachers' Council NSW – NSW Education Standards Authority (NESA) as the endorsed provider of QTC Registered professional development for the maintenance of accreditation at Proficient, Highly Accomplished, and Lead levels.

Completing the **Senior Geography Teacher Conference** will contribute **5 hours 30 minutes** of NESA Registered PD addressing 6.2.2; 6.3.2; 7.4.2 from the Australian Professional Standards for Teachers towards maintaining Proficient Teacher Accreditation in NSW.

Further information from the [GTANSW website](#)

www.gtansw.org.au

contact us via email at gta.admin@ptc.nsw.edu.au or telephone 02 9716 0378