

10th March, 2017

It doesn't have to be this way

An article in the SMH on 6th March entitled *Gender imbalance in university courses just doesn't add up* particularly highlighted that despite a widespread push for more women to enter the science, technology, engineering and maths fields (STEM) this push was not reflected in this year's university courses entrance figures. Data provided by UAC shows that entry for women to these courses has remained unchanged over the last five years.

While 2 per cent of the 51 000 women who applied for undergraduate courses received an offer for engineering or related technologies, this compared unfavourably with 12 per cent of 38 000 new male students. Only 1 per cent of female students received an offer for information technology courses, compared to 7 per cent of male students.

Nearly half of all new female undergraduates received offers in health or society and cultural fields, with about 13 per cent of female students offered places in management and commerce, compared to 20 per cent of male students.

A report by Price Waterhouse Coopers in April 2015 estimated that 75% of future jobs will involve STEM backgrounds. With 44%, or 5.1 million, jobs at risk of digital disruption in the future, innovation and STEM education are forecast to be the key to future growth, and jobs. Businesses competing in a global economy driven by data, digital technologies and innovation will need more employees trained in STEM. Some of the current new job titles include: IOS developer, social media intern, big data architect digital marketing specialist, data scientist, cloud services specialist.

All this information is relevant to Year 10s making subject choices for 2018 and to Year 11 and 12 students making tertiary study choices.

Add **STEM skills** to your tool belt



- **Career Builders** – e Business, Finance, Digital Marketing, Project Management.
- **Tech Wizards** – Cryptology, Cyber Security
- **Humanitarians** – Medical Treatment and Technology, Aid Work, Education, Water, Health.
- **Environmentalists** – Renewable Energy, Sustainable Buildings, Climate Change, Ocean research
- **Creatives** – Web Design, Animatronics, Digital Artworks, User Experience (UX design).
- **Entrepreneurs** – Apps, New Tech



News from the Universities

University of Sydney

The university has just completed an extensive curriculum overhaul, which will come into effect in 2018. The big change is the introduction of a new combined Bachelor of Advanced Studies which will be available in combination with many of their three-year degrees. This will involve an academic discipline with one or two highly structured majors. The degree will have academic rigour, global perspectives, cross-disciplinary learning and participation in real-world projects. There will be breadth of choice, with a shared pool of 100+ majors and minors, available to students in liberal degrees and some specialist degrees.

LIBERAL STUDIES DEGREES*	PROFESSIONAL & SPECIALIST DEGREES*
<ul style="list-style-type: none"> B Arts B Commerce B Liberal Arts and Science B Science B Arts/B Advanced Studies B Commerce/B Advanced Studies B Science/B Advanced Studies B Arts/MD B Science/MD B Science/DDM B Science/MND 	<ul style="list-style-type: none"> B Advanced Computing B Applied Science B Architecture and Environments B Design Computing B Design Computing/B Advanced Studies B Design in Architecture B Economics B Economics/B Advanced Studies B Education B Engineering (Honours) Combined Engineering B Music B Nursing Combined Nursing B Oral Health B Pharmacy B Pharmacy and Management B Project Management B Social Work B Psychology Combined Law B Veterinary Biology/DVM B Visual Arts

* streams/combinations not listed

Breadth of Choice – Shared Pool of Majors

Combine your primary major with one of the below

<p>Architecture and interaction design</p> <ul style="list-style-type: none"> Design 	<p>Arts and social sciences</p> <ul style="list-style-type: none"> Agriculture and Resource Economics American Studies Ancient Greek Ancient History Anthropology Arabic Language and Cultures Archaeology Art History Asian Studies Biblical Studies and Classical Hebrew Chinese Studies Cultural Studies Digital Cultures Economic Policy Economics English European Studies Film Studies French and Francophone Studies Gender Studies Germanic Studies Hebrew (Modern) History Indigenous Studies Indonesian Studies International Comparative Literature Studies International Relations Italian Studies Japanese Studies Jewish Civilisation, Thought and Culture Korean Studies Latin Linguistics Modern Greek Philosophy Political Economy Politics Socio-legal Studies Sociology Spanish and Latin American Studies Studies in Religion Theatre and Performance Studies Visual Art 	<p>Business</p> <ul style="list-style-type: none"> Accounting Banking Business Analytics Business Information Systems Business Law Finance Industrial Relations and Human Resource Management International Business Management Marketing 	<p>Education and social work</p> <ul style="list-style-type: none"> Education 	<p>Engineering and information technology</p> <ul style="list-style-type: none"> Computer Science Information Systems Project Management Software Development 	<p>Health, medicine and dentistry</p> <ul style="list-style-type: none"> Anatomy and Histology Applied Medical Science Biochemistry and Molecular Biology Biology Cell and Developmental Biology Chemistry Data Science Ecology and Evolutionary Biology Environmental Studies Financial Mathematics and Statistics Food Science Genetics and Genomics Geography Geology and Geophysics Health Hearing and Speech Immunology and Pathology Infectious Diseases Neuroscience Pharmacology Physiology 	<p>Science, agriculture, environment and veterinary studies</p> <ul style="list-style-type: none"> Animal Health, Disease and Welfare Animal Production Behavioural Sciences Biology Cell and Developmental Biology Chemistry Data Science Ecology and Evolutionary Biology Environmental Studies Financial Mathematics and Statistics Food Science Genetics and Genomics Geography Geology and Geophysics History and Philosophy of Science Marine Sciences Mathematics Medicinal Chemistry Microbiology Nutrition Science Physics Plant Production Quantitative Life Sciences Soil Sciences and Hydrology Statistics
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Sydney will offer high achieving students with a 98+ ATAR the chance to become a Dalyell Scholar (named after Elsie Jean Dalyell OBE, 1881-1948, a distinguished Sydney medical graduate. Advantages include: distinctive Daylell units; advanced programs and acceleration to master's level study; research and entrepreneurship opportunities; tailored mentoring and professional skill development and international experiences (including a global mobility scholarship).

Open Day will be on Saturday, 26th August from 9 am – 4 pm.

University of Western Sydney (WSU)

This week I visited the new WSU campus situated 2 minutes' walk from Parramatta train station. They have just opened the first building of what will be a vertical campus, located in the heart of the Parramatta business district. All their undergraduate and postgraduates courses in business will be taught in this building, with other courses to follow in buildings about to be constructed.

WSU now has 44 000 students spread over 8 campuses, with more campuses to open in the future. The new building is used by 8 000 students, 150 administration staff and 100 professional staff.

Level 11 of the building will house Price Waterhouse Coopers whose staff will teach in some of the business programs and the company will provide internships and scholarships. Levels 12-14 will be occupied by Sydney Water, with whom it is hoped similar arrangements will occur.

The importance of this campus is emphasised by the fact that 1 in 4 businesses will leverage off the digital economy. This relates immediately to the first article in this bulletin. The Vice Chancellor quoted: 60 per cent of young Australians are enrolled in fields where at least two-thirds of the jobs will be affected by automation, so the newly-emerging clusters of jobs will be imperative to youth employment.

The new building has no lecture theatres because there are no face-to-face lectures. Students are expected to undertake set readings before tuning in to recorded lectures. They then work in one of 24 classrooms set up for tutorials in groups of 5 – 6 students, with the lecturer located standing in the middle of the room. I attended one of these tutorials and was impressed by the total engagement of students.

New WSU courses in 2017 are B Cyber Security (Parramatta - 79.00) and B Anthropology (Bankstown - 75.25).



Open Day will be on 27th August this year at the Parramatta campus, from 10 am – 2 pm.

Coming Events

JMC Academy Sydney is holding an information session on 22nd March from 6.00 – 7.00 pm at 561 Harris Street, Ultimo, to explain their courses in Animation, Film and TV, Music, Songwriting, Game Design, Entertainment Management, Audio Engineering and Digital Design. To reserve a place:

<http://www.jmcaemyi.edu.au/events/information-sessions/jmc-academy-information-sessions>.

Sydney Design School is holding an information session on 29th March at 6.00 pm at their premises on Level 2, 40 Oxley Street, St Leonards. This will explain career opportunities in interior design and decoration. Register online at <http://bit.ly/1KW7G1c>.

The University of Sydney is holding Year 10 Information Evenings on Thursday, 30th March, Wednesday, 3rd May and Tuesday, 23rd May, from 6.00 – 8.00 pm at their Camperdown campus. Registration is essential – please go to sydneyedu.au/yr10-info-evening.

CSU's MyDay Agriculture event will be held at the Wagga Wagga campus on Monday, 10th and Tuesday, 11th April. Students need to register by 3rd April if attending. Email infoevents@csu.edu.au.

CSU's MyDay for Clinical Science, Dental Science, Pharmacy and Physiotherapy will be held at the Orange campus on Tuesday, 11th April. Students need to register by 4th April if attending. Telephone: 6338 6011.

For these events register your interest at <http://futurestudents.csu.edu.au/unilife/social/campus-events/myday/register>.

Macquarie University is holding Macquarie in a Day, for Year 11 and 12 students on Wednesday, 19th and Thursday, 20th April from 9.00 – 3.00 pm. See the website for further details.

UOW Open Day will be held on 19th August.

Courses

AUSTSWIM Teacher of Swimming and Water Safety course will be held on 1st April at 8.30 am at the Starting Blocks Swim School, Miranda. Cost is \$412 to obtain the industry standard licence. The course runs over two full days from 8.30 am – 5.30 pm. Pre-requisites: be 16 years of age (cannot be qualified until 17) and have a reasonable level of fitness and swimming ability.

New Degrees

ANU will introduce new pathways to study to prepare students for entry into Bachelor-level studies:

- Diploma of Creative Arts
- Diploma of Music
- Diploma of Science

Their new degrees for 2018 will be:

- Flexible vertical double degrees, combining a Bachelor and a Master degree in a reduced timeframe.
- New Bachelor of Health Science to equip graduates for career pathways in medicine, allied health, health organisations and public service. Students can move into the Master of Public Health as a part of a FVDD.

Australian Defence Forces Gap Year

Applications opened on 1st March for the 2018 ADF Gap Year to experience life in the Navy, Army or Air Force. There are 14 roles to choose from, including Army Officer as a new role. Places are strictly limited so applicants should apply quickly.

Requirements are:

- Australian citizen
- Aged between 18 and 24 years on admission
- Year 12 completion (required passes vary by job)

University Accommodation

Year 12 students planning to live in college in Sydney or in rural locations should be starting now to investigate admission requirements to these colleges.

(Mrs) G M Cartwright
Careers Counsellor

The Watermelon Page

Study Tips from ELES

BASED ON THE STUDY SKILLS HANDBOOK NEWSLETTER

BUILDING CONCENTRATION SKILLS

Many students find it difficult to concentrate and stay focused when they are doing their schoolwork at home. So what can we do to improve concentration levels? Try these top tips:

1. **IMPROVE THE ENVIRONMENT:** Have a good hard look at the environment you are trying to concentrate in. Is it noisy? Are there more exciting things happening around you? Is it too hot? Too cold? Are you uncomfortable? Too comfortable? What can you do to make the space more conducive to concentration?
2. **BLOCKS OF TIME:** If you are someone who finds it difficult to concentrate at home don't try and study for too long at a time. Instead tell yourself you will work for 20-30 minutes then you can have a break. If you know it is only 20-30 minutes it is much easier to concentrate than if it was for an indefinite period of time.
3. **ANCHOR TO THE PRESENT:** Create a focus word that brings you back on task. We all daydream. The key is to start to pay more attention to when you are doing it and then immediately take action. If your key word for example was 'orange' when you notice you are day-dreaming say 'orange orange orange' to refocus your attention to your work.
4. **RESET THE BRAIN:** Sometimes you just need a time-out from what you are doing in order to be able to concentrate again. If your attention is constantly wandering, then get up and have a drink, walk outside, kick a ball – just take 5 to 10 minutes to clear your head so you can come back fresh to your work.
5. **WORK OUT PEAK TIMES:** Start to pay attention to what time of the day you are most focused. That's when you need to do the harder work or the work that requires greatest concentration. If you know you get tired after dinner don't leave the difficult work until then.
6. **CARROT AND STICK:** Some people are motivated by working towards rewards, others by avoiding punishments. Give yourself a target time to focus with a little reward at the end if you achieve it – or maybe a little punishment if you don't!

You can learn more about how to be a more effective student at www.studyskillshandbook.com.au by logging in with the details below and working through some of the units. There are also lots of useful grids and planners at the bottom of the Things to Print page.

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