

# Weekly Career News

## TERM TWO

Tuesday 26 May 2015

### CAREERS IN MATHS, ENGINEERING & SCIENCE

Do you enjoy mathematics, science and engineering subjects at school? Have you considered pursuing a career in these areas? Mathematics, science and engineering shape our day to day lives. For example:

- **Who produces your breakfast?** Farmers, food scientists and technologists, nutritionists
- **Who takes you to school?** Design & development engineers, petrochemical engineers, automotive engineers, automotive electricians, environmental scientists, mechanics, materials scientists
- **Who built your school?** Architects, surveyors, structural engineers, electricians, plumbers, carpenters
- **Who assists your learning?** Teachers, journalists, film producers, software designers, publishers, writers
- **Who helps you exercise?** Exercise scientists, physiotherapists, sports psychologists
- **Who keeps you healthy?** Doctors, nurses, pharmacists, biomedical scientists
- **Who contributes to your spare time?** Computer game developers, music technologists, product designers, sound and lighting technicians.

#### Exploring mathematics, science and engineering degrees

**MATHEMATICS:** If you are a logical and analytical person who enjoys solving problems with numbers, you may like to explore a career in mathematics, statistics and actuarial studies.

Employment for actuaries, mathematicians and statisticians is expected to grow very strongly over the next three years.

I ♥<sup>2</sup>  
Maths

### CAREERS IN MATHS, ENGINEERING & SCIENCE

Go to the following websites to find out more-

[www.mathscareers.org.au/](http://www.mathscareers.org.au/)

[www.austms.org.au/Careers](http://www.austms.org.au/Careers)



**SCIENCE:** There are several broad disciplines in science. The following are examples-

- **Physical science** is for people who like to ask questions about why things are the way they are in the world around us. School subjects include chemistry and physics.
- **Computer science** is for people who like to understand how computers work and to learn how develop new programs and systems.
- **Life sciences** is for people who like to ask questions and think about living things and covers areas such as medicine, biology and ecology.
- **Astrophysics** is for people who are fascinated with the universe, stars and space exploration.
- **Earth science** is for people who are interested in soil, rocks, weather and the natural environment.

Thousands of new jobs for science professionals will be created over the next 5 years. Demand for health science graduates in areas such as audiology and dietetics, natural and physical sciences, and life science will be high.

For more information about science careers, download the Ultimate Science Guide developed by RiAUS- Australia's Science Channel- <http://tinyurl.com/pswdf9k>



## CAREERS IN MATHS, ENGINEERING & SCIENCE

**ENGINEERING:** If you are practical, like to know how things work and enjoy analyzing and solving problems, you should explore careers in engineering.

You can blend engineering with an area you are passionate about. Types of engineering include (and are not limited to):

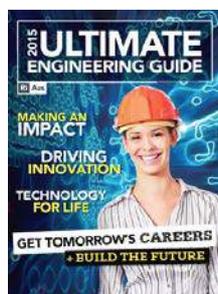
- |                 |                |
|-----------------|----------------|
| ▪ Civil         | ▪ Coastal      |
| ▪ Chemical      | ▪ Mechanical   |
| ▪ Mechanical    | ▪ Robotics     |
| ▪ Electrical    | ▪ Computer     |
| ▪ Systems       | ▪ Mechatronic  |
| ▪ Biomedical    | ▪ Aeronautical |
| ▪ Environmental | ▪ Automotive   |
| ▪ Marine        | ▪ Mining       |
| ▪ Metallurgical | ▪ Sound        |
| ▪ Structural    | ▪ Electronics  |
| ▪ Communication | ▪ Sustainable  |

Over the next three years, employment in electronics engineering is expected to grow strongly (source: Job Outlook).

Check out the following sites:

[www.engineersaustralia.org.au/](http://www.engineersaustralia.org.au/)  
[www.engineering.unsw.edu.au/](http://www.engineering.unsw.edu.au/)

For more information about engineering careers, download the Ultimate Engineering Guide developed by RiAUS- Australia's Science Channel-  
<http://tinyurl.com/pswdf9k>



## SCHOLARSHIP

**Nuclear Medicine Scholarships at RMIT:** The Victorian Department of Health and Human Services is offering up to five scholarships of \$10,000 each for nuclear medicine students studying the Bachelor of Applied Science (Medical Radiations) at RMIT in 2016. Applications will open in August and will close mid December 2015. For information, go to [www.rmit.edu.au/scholarships/nuclear](http://www.rmit.edu.au/scholarships/nuclear)



## COMPETITIONS

**Swinburne University Ultimate Study Pack- win prizes!** Students can enter online to win one of seven iPad Minis or the Ultimate Study Pack, including a MacBook Pro 13" with Retina Display and a Mojo Urban bike. All you have to do is register your details at the following website- [www.swinburne.edu.au/2015/win/](http://www.swinburne.edu.au/2015/win/)



**Urban Futures:** Now more than ever people are choosing to live in cities and this trend is rapidly increasing. Melbourne's population is forecast to hit 5 million before 2030. This presents challenges and opportunities for planning, designing and managing our cities. Win up to \$500 by coming up with the best idea to help tackle the challenges our cities face today and in the future.

Your task is to provide a photo or image to communicate an urban problem you have identified, and explain the problem and your ideas for a solution in 200–300 words. You must be in Years 10 – 12 and all entries must be in by Sunday 30 August. For information on the competition and how you can enter, go to <http://tinyurl.com/knbumu6>

**Keep in touch with La Trobe University:** Sign up to receive updates from La Trobe about their courses and initiatives, and you could win a \$4500 travel voucher. Go here to sign up – <http://tinyurl.com/nyevjz4>

**The Heywire competition** is open to people aged 16 – 22, to submit a story about life in regional Australia. Your story can be created in any form of media: text, video, photography, or audio. If you are selected as one of the winners, your story will be featured on ABC Local Radio, ABC Radio National, ABC TV and abc.net, [www.abc.net.au/heywire](http://www.abc.net.au/heywire)



Be heard on the ABC!



Win a trip to the Heywire Summit!



Make a difference!

**If you are interested in pursuing a trade or further technical study** in the future, you probably have a passion for hands on learning, are interested in how things work, take pride in the end result of a project and have excellent communication skills.

Trades and skilled work cover occupations in industries such as building and construction, transport and logistics, hospitality, community services, automotive, metals and engineering, rural and farming and mining and manufacturing etc.

You can study at TAFE and/ or university and in many areas you can complete your qualifications through a traineeship, apprenticeship or cadetship.

**Websites to explore:**

**Skillsone:** videos about different occupations and getting a trade, [www.skillsone.com.au](http://www.skillsone.com.au)

**Australian Apprenticeships and Traineeships:** Explore apprenticeship pathway charts, undertake practice aptitude tests, learn about government initiatives and watch videos, [www.nacinfo.com.au/](http://www.nacinfo.com.au/)

**Myfuture:** Information about occupations, industries, videos, scholarships, courses etc., [www.myfuture.edu.au/](http://www.myfuture.edu.au/)

**Food and Fibre,** [www.careerharvest.com.au/](http://www.careerharvest.com.au/)

**Transport and Logistics:** [www.the-linc.com.au/](http://www.the-linc.com.au/)

**Bricklaying:** <http://tinyurl.com/kgtyeyt>

**Hospitality:** <http://tinyurl.com/kptbjbr>

**Tourism:** [www.discovertourism.com.au/](http://www.discovertourism.com.au/)

**Construction:** <http://tinyurl.com/lc6df65>

**Mining:** [www.miningcareers.com/](http://www.miningcareers.com/)

**Defence Jobs:** [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

**Automotive:** <http://maapmyfuture.com.au/>

**Plumbing:** <http://tinyurl.com/lvlef7y>



**Do you need a White Card?** If you would like to undertake work experience or work in the construction industry, you will need to complete occupational health and safety induction training. To prepare for this, you can undertake the 'White Card Game'. Through an online first person perspective, the goal of the game is to identify, control and report workplace hazards on a construction site without getting injured or causing the death of workmates. Go to [www.whitecardgame.com.au/](http://www.whitecardgame.com.au/)



**Pre-apprenticeship programs:** If you are considering leaving school mid-year, you may be interested in applying for a pre-apprenticeship. These courses are like VET subjects at school- you get a taste of the industry you are interested in and also a state or nationally recognised qualification. Contact a TAFE Institute near you to find out what's on offer- <http://tinyurl.com/lbtk6r>

**High Achievers Program at Swinburne University:** Swinburne's High Achievers Program recognises students who demonstrate exceptional potential to benefit from access to research and industry projects. Students who receive an offer for one of the following courses:

- Bachelor of Design (Communication Design) (Honours)
- Bachelor of Information Technology
- Bachelor of Science (Physics)

And receive an ATAR of 95+, will be eligible to receive:

- \$5000 per annum cash scholarship for the duration of their course
- \$2000 towards an international study experience
- A guaranteed place in Swinburne's student accommodation
- A research group or project, or industry program, from the first year of their degree
- Mentoring from senior research students in master and PhD programs

For information on this amazing program, go to <http://tinyurl.com/l9976dd>

## UPCOMING EVENTS

**Year 8 Challenge, Monash University:** Year 8 students can dive into the wonderful world of engineering these upcoming school holidays at Monash University, Clayton Campus. Over three days, students will participate in six exciting workshops run by Monash experts. The event will be running between 6 – 8 July. For more information and to register, go to <http://eng.monash.edu.au/challenge>



**UMAT Preparation Day:** Students in Year 12 interested in applying for medicine, dentistry or optometry may need to sit the Undergraduate Medical Admissions Test (UMAT) on 29 July. National Institute of Education (NIE) will be conducting UMAT intensive preparation days on 13 and 14 June at St Vincent's Hospital, Melbourne. Places are strictly limited. To book your place, go to [www.nie.edu.au/](http://www.nie.edu.au/)

**Science Bootcamp at the CSIRO:** Spend two days exploring molecular and cellular biology with CSIRO. See CSIRO labs and testing facilities, meet and chat with research scientists, explore the world of DNA and extract your own! The bootcamp will be run Tuesday 30 June – Wednesday 1 July at Clayton. Students must be at least 13 years old and in Years 8 – 12. To book, go to <http://tinyurl.com/jvm32an>

**Year 10 female students interested in engineering and IT:** are invited to participate in ENGenuTy, run by Monash University on Tuesday 30 June. ENGenuTy will give students an opportunity to:

- Find out about courses and careers in engineering and IT
- Connect with like-minded people and discover the world of engineering and IT professionals.
- Participate in hands-on activities in different fields of engineering and information technology
- Undertake a speed networking session with alumnae working in industry, female researchers and current students, to give students the chance to get insights into the diverse experiences and career paths in engineering and IT from a female perspective.

For more information and to register, go to [www.eng.monash.edu/engenuity](http://www.eng.monash.edu/engenuity)

## UPCOMING EVENTS

### Upcoming Events: June

- **MyDays, Charles Sturt University:** Agriculture (12), Communication & Creative Industries (23), Policing & Criminal Justice (29), [www.csu.edu.au/go/myday](http://www.csu.edu.au/go/myday)
- **Information Evenings, Monash University,** various dates and locations, <http://tinyurl.com/n2dlulx>
- **2: Information Night, Deakin University,** Geelong Waterfront, <http://tinyurl.com/p465p85>
- **2: Information Evening, Swinburne University,** Hawthorn, <http://tinyurl.com/kknmyvp>
- **13, 14 June: UMAT Preparation Day, St Vincent's Hospital, Melbourne,** [www.nie.edu.au/](http://www.nie.edu.au/)
- **19: Experience Day, La Trobe University,** Albury-Wodonga, [www.latrobe.edu.au/experience](http://www.latrobe.edu.au/experience)
- **19, 20: Open Day, Whitehouse Institute of Design, Melbourne,** <http://tinyurl.com/7nk2vrc>
- **24: 2015 Environmental and Marine Careers Expo, Melbourne Aquarium,** [www.melbourneaquarium.com.au/schools](http://www.melbourneaquarium.com.au/schools)
- **27: High School Workshops, JMC Academy, Melbourne,** [www.jmcacademy.edu.au/](http://www.jmcacademy.edu.au/)
- **29: Science in the City & Laboratory Tour, RMIT, Melbourne,** <http://tinyurl.com/pvsg8fj>
- **29, 30: Experience Days, Australian Catholic University, Melbourne (29) and Ballarat (30),** [www.acu.edu.au/97108](http://www.acu.edu.au/97108)
- **30: Discover Deakin, Melbourne Campus,** <http://tinyurl.com/q3yaqln>
- **30: ENGenuTy, Engineering and IT day, Monash University, Clayton,** [www.eng.monash.edu/engenuity](http://www.eng.monash.edu/engenuity)
- **28 June – 19 July: Trinity College Young Leaders School,** [www.trinity.unimelb.edu.au/young\\_leaders](http://www.trinity.unimelb.edu.au/young_leaders)