What is engineering?

Engineers have contributed to some of the greatest technological achievements of the 20th century including electrification, automobiles, health technologies, space craft and high performance materials. Engineering is the application of maths and science to design, create, improve and maintain things such as buildings, computers, cars, roads and aeroplanes. Engineering shapes and changes the world we live in and without it, there would be no improvements to our lifestyles. Engineers solve problems and improve the way things work. They have management, lateral thinking and communication skills. Graduates are in high demand and are often employed on starting salaries higher than the national average.

Indigenous representation in engineering?

Indigenous Australians are underrepresented in the engineering profession. This is unfortunate, because engineering is the only original wealth creating profession. Remote communities and outback Australia are areas most in need of infrastructure development, a process that can only be undertaken ultimately with the contribution of engineering professionals, educated in our universities. Engineers design and advise on drinking water, roads, hospitals, schools, radio, television, communication networks and all the fabric of modern society. Wealth creation through irrigation schemes, electricity generation, mining and agriculture will be undertaken in country areas, preferably with the guidance and participation of those living there. Engineers may be the most valuable resource such communities can have.

What is IAESS?

Curtin University of Technology and the Chamber of Minerals and Energy have partnered to host the Indigenous Australian Engineering Summer School (IAESS) in January 2010. This is a fantastic opportunity for Indigenous students currently in years 10 and 11 who have demonstrated interest and ability in engineering as a career. With the support and recommendation of their teachers, chosen students will be fully financially supported to participate in the IAESS in Perth. They will participate in classes, labs and field trips to give them a hands-on experience of engineering. As well as this, they will have the chance to form a social network to encourage each other, and others, to follow a career in engineering.
Interested?

If any of the above qualities sound like you, apply to the Curtin Indigenous Australian Engineering Summer School (IAESS) and discover the benefits of the engineering profession. It is open to students entering years 11 and 12 in 2010 and will be held at Curtin University of Technology in Perth, Western Australia.

What makes a good engineer?

Someone who
• Has a natural aptitude for maths and science
• Wants to make things happen
• Is inquisitive and likes solving problems
• Is interested in how things work
• Enjoys challenges.

Cost?

There is no fee for participating in the 2010 IAESS. Travel to and from Perth, as well as meals and accommodation for the duration of the program, are provided without charge to all participants. Your only financial need will be a bit of spending money while travelling, and during your stay in Perth.

What will participants do?

The summer school normally involves hands on and challenging group work with one of the schools in the Faculty of Science and Engineering each morning, with each afternoon spent on a site visit to engineering companies and major projects. The summer school promotes teamwork and communication skills, with several competitions to motivate and inspire both individual and group involvement. At the graduation dinner, you will have the opportunity to mix with numerous engineers and university staff. You will stay in campus accommodation within Curtin’s grounds and get a taste of university life and a better understanding of engineering as a university course and career. All participants in the IAESS will be covered by insurance during the summer school. Curtin has public liability cover and a risk management office specialising in all insurance matters.

“I graduated from Curtin University of Technology as a Mechanical Engineer in 2004. When I heard that Curtin was going to run an Engineering Summer School I was honoured to be asked to be a Mentor. The IAESS is a great opportunity for young Indigenous people to be exposed to many of the different disciplines in Engineering. It will also give them a chance to experience life as a university student. I am looking forward to being involved in Curtin’s first IAESS.”

Michael Hutton
BEng (Mechanical)
Curtin University of Technology
The Faculty of Science and Engineering at Curtin

Curtin’s Faculty of Science and Engineering has an international reputation for the quality of its graduates and research achievements. It is at the forefront of technological and scientific innovation that encompasses the areas of Engineering, Science, Computing, Mathematics, Agriculture, Environmental Sciences, Mining and Resources.

The Centre for Aboriginal Studies at Curtin

The Centre for Aboriginal Studies (CAS) is an Aboriginal-managed academic school established at Curtin University of Technology in Western Australia in 1983. CAS promotes the participation of Aboriginal and Torres Strait Islander people in tertiary studies, and aims to create new ways of learning and working that are culturally appropriate, for the benefit all people. Courses run through CAS focus on the skills and abilities needed when working within both the Indigenous and non-Indigenous community. The Centre is committed to increasing the participation of Aboriginal and Islander students in higher education. CAS supports over 450 Aboriginal and Islander students who are enrolled in various courses at Curtin, the highest number of Indigenous students of any university in Australia. CAS is instrumental in ensuring that all students at Curtin have an understanding of indigenous culture and is working with the University to implement indigenous content into all courses offered at Curtin.

Engineering Aid Australia

Engineering Aid Australia is a philanthropic organisation that provides engineers and related services to assist disadvantaged communities both in Australia and overseas. The Indigenous Australian Engineering Summer School is their principal program on behalf of Indigenous Young Australians.

Applications

Applicants will be selected for IAESS on the basis of their interest in engineering related subjects (such as mathematics and science) and personal initiative and outlook, as expressed in the attached application form, and supported by those who know them. If you wish to apply for the Indigenous Australian Engineering Summer School please complete the application form and submit documents as indicated on the application form. Applications close on Thursday 19 November 2009.

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Information in this publication is correct at the time of printing and valid for 2009, but may be subject to change. In particular, the University reserves the right to change the content and/or method of assessment, to charge or alter tuition fees of any unit of study, to withdraw any unit of study or program which it offers, to impose limitations or enrolment in any unit or program, and/or to vary arrangements for any program. Part-time and external study is only available to Australian resident students and International students studying outside Australia. Full details of units and course structure can be obtained by contacting the above or electronically from: http://handbook.curtin.edu.au

For more information about IAESS and the application process please contact:

Mr Leon Oriti (IAESS 2007) with the Hon Bob Hawke AC, Patron

“...I’d like to invite you to attend the Summer School. Past students have told me how it was a life changing experience for them. It will show you the exciting and varied career opportunities that are available to young men and women in the engineering profession. Engineering has an exciting future as Australia increasingly develops and applies its technological skills to improving the quality of life for all its people. You will learn about the various fields of engineering, visit engineering projects and meet with indigenous role models and young people presently studying engineering. I’m sure you will enjoy the experience and return home with a new and expanded vision of your future.”

The Hon Bob Hawke AC, Patron

Curtin Innovation

Curtin aspires to be a leading edge university of technology. To fulfil this vision, we strive to be innovative and forward-looking in everything we do. It’s in our approach to teaching and learning. It’s in our research. It’s in our staff. It’s in our students. It’s in our graduates. It’s in the way we think and act. It’s what we call Curtin Innovation.

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