Melbourne School of Engineering

Careers Practitioners’ Seminar

Engineering and IT

What is Engineering about?

Problem Solving

Making a difference

Engineering!

Why Engineering?

• Increase in demand for engineers globally
• Interesting, engaging, offers REAL WORLD solutions to REAL WORLD problems
• For people that like maths and science, solving problems, and making a difference

Engineering in the real world

• Disaster management – locate all the fire trucks in a 10km radius of a bush fire and engage them in a response
• GIFI – new technology for cheaper, faster transfer of data – working with IBM, Samsung, Intel, Dell
• Petrol Engine technology – improve fuel efficiency, reduce carbon footprint, alongside Hybrid and Electric counterparts
• Examine muscle forces to assist in the fight against osteoporosis
• Designing sanitation systems for remote villages in Cambodia
The Melbourne School of Engineering offers:

- Biomedical Engineering
- Biomolecular Engineering
- Chemical Engineering
- Civil & Structural Engineering
- Computer & Software Engineering
- Electrical & Electronic Engineering
- Environmental Engineering
- Geomatics
- Information Technology
- Mechanical Engineering
- Mechatronic Engineering

Engineering at Melbourne commences from Day 1 of the student’s undergraduate degree.

- Students complete an engineering sequence, or major, in one of the bachelor of:
  - Science
  - Commerce
  - Environments
  - Biomedicine
- Students then complete the Masters of Engineering, to become an accredited engineer.

Sample Course Plan 1:
Bachelor of Science + Master of Engineering

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
<th>Science</th>
<th>Breadth/Choice</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>Engineering</td>
<td>Calculus 1</td>
<td>Science</td>
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</table>
Melbourne School of Engineering

Sample Course Plan 2:
Bachelor of Commerce + Master of Engineering

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<th>Eng / Sci</th>
<th>Eng / Sci</th>
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<td>Commerce</td>
<td>Eng / Sci</td>
<td>Eng / Sci</td>
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<tr>
<td>3</td>
<td>Commerce</td>
<td>Commerce</td>
<td>Commerce</td>
<td>Eng / Sci</td>
<td>Eng / Sci</td>
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<td>Engineering</td>
<td>Engineering</td>
<td>Engineering</td>
</tr>
</tbody>
</table>

What can you expect?

- Maths and Engineering subjects, 4 contact hours a week (plus home study)
- Physics and Chemistry, 7 hours a week with practical classes (plus home study)
- 1st year average contact is 16-21 hours a week
- Flexibility to plan your course and change streams*
- Academic Skills Unit
- Careers Office
- Research Opportunities
- Study Abroad and Exchange in Bachelor and Master program

* Changing streams may lengthen the program but is still possible

Student profile

"One of the things I most enjoy is the flexibility to choose out-of-engineering electives, such as commerce subjects, which will complement my basic engineering skills."

- International accreditation through both the Washington Accord (provisional) and EUR-ACE®
- Melbourne is Australia’s top Engineering university and one of the best in the world
- Build a career at a university with strong industry links in teaching and research
- Choose from a broad range of disciplines in engineering and IT, with different courses to suit your needs

Vincent Tjandra
Bachelor of Science (Mechanical Systems)
Master of Engineering (Mechatronics)

Melbourne Engineers – making news

Marita Cheng
2012 Young Australian of the Year
Melbourne School of Engineering

Where our graduates work

Entry requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Bachelor of Biomedicine</th>
<th>Bachelor of Commerce</th>
<th>Bachelor of Environments</th>
<th>Bachelor of Science</th>
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<tbody>
<tr>
<td>Clear in 2012</td>
<td>99.00</td>
<td>95.45</td>
<td>86.80</td>
<td>90.15</td>
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</table>

Prerequisites for VCE

- English (25) or ESL (30)
- Chemistry (25)
- One of Maths Methods (25) or Specialist (25) & One of English (25) or ESL (30) & Maths Methods (25) or Specialist (25)
- One of Chemistry (25) or Biology (25) or Physics (25) & Specialist (25)
- English (25) or ESL (30)
- One of Maths Methods (25) or Specialist (25)

Score & prerequisites for IB

- 36: English, Chemistry & Maths (must be at least Grade 4 at Standard Level or Higher Level)
- 34: English and Maths (must be at least Grade 4 at Standard Level or Higher Level)
- 31: English, Maths and one of Biology, Chemistry or Physics (must be at least Grade 4 at Standard Level or Higher Level)

Score & prerequisites for Master of Engineering

- 65% in all 2nd & 3rd year subjects, students must also completed Calculus 2, Linear Algebra & 2x respective science subjects

Scholarships

- Master of Engineering Merit Scholarships
- Access Scholarships $10,000
- Scholarships No application necessary

Graduate Access Melbourne
- $5,000
- Must complete a form (Similar to Access Melbourne)

Many other scholarships available
www.eng.unimelb.edu.au/scholarships

Contact the Future Students Team

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