Bachelor of Engineering (Honours) Welcome Seminar

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Deputy Associate Dean Academic (First Year)
Recording of this Presentation

Students, please be aware that this session is being recorded so it can be made available via the Faculty of EAIT orientation page. The reason we are recording the orientation presentation is to make it available for your future reference, and to support students who may not have been able to attend today’s session.

Suggested options for students not wishing to be recorded:

• Turn off video and mute audio
• Use a proxy name for Zoom (student attendance will still be on record with the Course Coordinator)

Please note that students are not permitted to record teaching without the explicit permission of the Course Co-ordinator. This includes recording classes using Zoom.

For further information:

• PPL 3.20.06 Recording of Teaching at UQ
Some tips & etiquette for using zoom in a large session:

• During the presentation, leave your microphone muted: stops background noise disturbing the presentation.

• You can use the “chat” function to ask the presenter a text questions at any time (though the presenter may leave the question until later).

• You may be provided opportunities to ask questions:
  - You can use the “raise hand” icon to indicate you have a question
  - When indicated by the session “host”, you can unmute and ask your questions

• UQ Student Charter requires that you act respectfully of staff and other students at all times both online and in-person.

• In smaller sessions follow the “hosts” instructions: they may encourage you to keep your video on, and ask for regular verbal input from you.
Your journey as a student engineer

Start your engineering studies with our flexible first year
Select one of 6 engineering specialisations
Consider Study Abroad or our European Double Degree program
Alternate entry point for the integrated program
Graduate from the BE (Hons)
Graduate from the BE (Hons) / ME

Entry
Flexible First Year
Year 1
Year 2
Year 3
Year 4
Year 5
Discipline specific courses
BE (Hons) / ME
BE (Hons) Thesis

Undertake Professional Practice

You can join over 220 clubs and societies at UQ
Go on site visits as part of your major

EAIT STUDENT EMPLOYABILITY TEAM

Getting you employed is our top priority. Get in touch with our Employability Team for industry networking events and workshops, personalised career-prep consultations and placement opportunities.

Gain an accredited degree that enables you to work anywhere in the world
Resources to help you to get started:

- **EAIT Welcome video (information, policies, resources)**: [https://www.eait.uq.edu.au/orientation](https://www.eait.uq.edu.au/orientation)
  - Academic planning resources
  - Support
  - Preparing ahead of semester
  - Getting involved

**Basic UQ Terminology:**
- **Program** = degree you’re studying, e.g. B.Engineering(Hons) or dual degree
- **Course** = subject
  - Each course has a course code (e.g. “ENGG1100”)
- **Unit** = measure of workload of a course
  - Most courses are 2 units (and assumes a minimum of 10-12hrs work per week)
**BE(Hons) Program Structure**

**Core Courses (#8)**
- Common across Engineering
- Completed in 1<sup>st</sup> Year

**Specialisation Courses (#36)**
- These are the courses that you need to complete to define the engineering discipline (“Specialisation”) you will graduate with.
- Completed from 1<sup>st</sup> year to 4<sup>th</sup> year

**Major / Minor / Electives (#16)**
- These courses complement and build upon your specialisation. Generally done in 3<sup>rd</sup> and 4<sup>th</sup> year, but you may be able to do some courses earlier

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**Option 1: Complete an Engineering Major #16 Major**

**Option 2: Complete an Engineering Minor and Electives #8 Minor plus #8 of Electives in your Specialisation.**

**Option 3: Maximum flexibility with all Electives #16 of Electives with at least #8 in your Specialisation.**

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**General Electives (#4)**
- Generally used in 1<sup>st</sup> year whilst you are trying things out, or catching up high school courses
BE(Hons) – Available Specialisation & Majors

Not sure which specialisation you want to do?
• No worries! You can enrol in the **flexible first year** to try things out, and then make up your mind by the start of second year.

Know which specialisation you want to do?
• You can focus your courses from first year.
• Some Majors also have courses you can do in first year (but you don’t need to choose major or start these until third year)

Change your mind during first year? Very Common!
Selecting Your Courses for First Year

- Most of you will have now already have selected your courses
- Most students will be able to directly follow our Recommended Enrolment Plans. Available from:

  https://www.eait.uq.edu.au/plan-your-program-bachelor-engineering-honours
# Which Courses Do I Need to Do?

<table>
<thead>
<tr>
<th>Core</th>
<th>Flexible First Year</th>
<th>Chemical</th>
<th>Civil</th>
<th>Electrical</th>
<th>Mechanical</th>
<th>Mechatronic</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGG1100 (Intro to professional engineering)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGG1001 or CSSE1001</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>MATH1051 or MATH1071</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>MATH1052 or MATH1072</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialisation</th>
<th>Flexible First Year</th>
<th>Chemical</th>
<th>Civil</th>
<th>Electrical</th>
<th>Mechanical</th>
<th>Mechatronic</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGG1300 (Intro to Electrical Systems)</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGG1500 (Thermodynamics)</td>
<td>Yes</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ENGG1700 (Structures and Materials)</td>
<td>Yes</td>
<td>-</td>
<td>Yes</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>Other Courses</td>
<td>-</td>
<td>CHEM1100</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>MATH1061, INFS1200*</td>
</tr>
</tbody>
</table>

* MATH1061 and/or INFS1200 can be completed in second year

Detailed Course Information: [https://www.eait.uq.edu.au/node/13048](https://www.eait.uq.edu.au/node/13048)
## Do I need to catch up Year 12 Courses?

<table>
<thead>
<tr>
<th>High School Courses or UQ Equivalents</th>
<th>Flexible First Year</th>
<th>Chemical</th>
<th>Civil</th>
<th>Electrical</th>
<th>Mechanical</th>
<th>Mechatronic</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Specialist Mathematics or MATH1050</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>High School Chemistry or CHEM1090</td>
<td>Yes</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>High School Physics or PHYS1171</td>
<td>Yes</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>-</td>
</tr>
</tbody>
</table>

- CHEM1090 is not available if you achieved a grade of B or higher in High School chemistry.
- PHYS1171 is not available if you achieved a grade of B or higher in High School physics.
- You will need EAIT Faculty permission to enrol in either of these courses (Email: enquiries@eait.uq.edu.au).
MATH1050 or MATH1051 or MATH1071 In Semester 1?

Grade of A or B in High School Specialist Mathematics → Are you interested in pure mathematics and rigorous proofs? → Yes → MATH1071 (Semester 1 only)

Grade of C in High School Specialist Mathematics* → I’m more interested in the applications of mathematics to Engineering → MATH1051

Grade of D or E in High School Specialist Mathematics → MATH1050

High School Mathematics Methods

*Students with a Grade of C in High School Specialist Mathematics can choose to enrol in MATH1050 if they are not confident in their mathematics ability (i.e. it is a long time since you completed high school).

If you are finding MATH1051 very difficult (and you have specialist Maths Grade of C), you can change your enrolment to MATH1050 during the first two weeks of semester.
Choosing ENGG1001 or CSSE1001

- Both these courses teach foundations of programming in Python, and share substantial resources:
  - ENGG1001 teaches programming in the context of engineering modelling problems
  - CSSE1001 teaches programming in a computing context
- While these courses are considered equivalent, and you can proceed to any specialisation with either course, to help you choose, we recommend:
  - Do CSSE1001 if you are intending on continuing to Specialisations in Electrical or Software Engineering; or you are enrolled in a BCompSci or BInfTech Dual Degree
  - Do ENGG1001 if you are intending on continuing to Specialisations in Civil, Chemical or Mechanical Engineering; or are in the Flexible First Year.
  - If you are intending on continuing to a Specialisation in Mechatronic Engineering, choose whichever interests you the most.
- There are class size limits on ENGG1001 in semester 1 (alternative plans are available with ENGG1001 in Sem 2)
## Dual Programs with BE(Hons)

<table>
<thead>
<tr>
<th>Dual Degree Bachelors of Engineering (Honours) with:</th>
<th>Total Size Of Program (#)</th>
<th>Engineering Component (#)</th>
<th>Specialisation</th>
<th>Specialisation + Engineering Major</th>
<th>Specialisation + Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Arts</td>
<td>88</td>
<td>56</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Biotechnology</td>
<td>80</td>
<td>56</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Business Management</td>
<td>88</td>
<td>56</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Commerce</td>
<td>88</td>
<td>56</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Computer Science</td>
<td>88</td>
<td>60</td>
<td>Yes, Except Software Engineering</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Design</td>
<td>88</td>
<td>56</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Economics</td>
<td>88</td>
<td>56</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Information Technology</td>
<td>88</td>
<td>56</td>
<td>Yes, Except Software Engineering</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Mathematics</td>
<td>80</td>
<td>60</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>80</td>
<td>60</td>
<td>Yes</td>
<td>Yes*</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- Depending on Engineering Specialisation, it may not be possible to complete all BSc majors within #80.
- Students without Specialist Mathematics and/or another high school prerequisite may be required to undertake preparatory courses, and may not be able to complete the program in the specified duration without overloading or undertaking summer study.
Courses for Dual Programs

• Planning dual programs can be hard, and it is recommended that all dual degree students meet with the first year academic advisor throughout the course of first semester. However, to get started:
  - If you are doing the flexible first year, or need to catch up high school physics or chemistry, meet the First Year Engineering Academic Advisor before choosing your courses.
  - If you have already chosen your engineering specialisation:
    • Follow the dual degree recommended enrolment plans: https://www.eait.uq.edu.au/bachelor-engineering-dual-program-structure
    • Follow the dual degree planners where available to choose courses for your dual program (from dual degree information page).
    • These allow for one course from your dual degree each semester in first year (but if you did not complete specialist mathematics, may require you to complete MATH1052 in Summer semester)

• There are some courses from dual degrees that you shouldn’t enrol in:
  - STAT1201 or STAT1301 or ECON1310 or ECON1050
  - SCIE1000 or SCIE1100
  - PHYS1001 if you will complete ENGG1500 in engineering
  - See: https://www.eait.uq.edu.au/bachelor-engineering-electives
Integrated BE(Hons)/ME

5 year Integrated Program

• Can enter via QTAC (OP 2), or
• Can apply internally after completing at least one year (GPA ≥ 5.0)

• Same coursework as BE(Hons) up to end of third year:

Choose your first year courses based on the BE(hons) recommended enrolment plans.


<table>
<thead>
<tr>
<th>BE (Hons) Year 1</th>
<th>BE (Hons) Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Final decision by end of year 3

<table>
<thead>
<tr>
<th>Continue to BE (Hons)</th>
<th>Apply to BE (Hons)/ME (GPA ≥ 5.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE (Hons) Year 4</td>
<td>BE (Hons)/ME Year 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BE (Hons) Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE (Hons) /ME</td>
</tr>
</tbody>
</table>
Dual Degree Programs and the BE/ME

- These add 12-18 months to the duration of your program:
  - BE/ME: Adds *depth* and specialist engineering skills; and substantial research or industry placement
  - B.Math, B.CompSci, B.InfTech, B.Sc(some majors), B.Design (some majors), B.Biotech: Add *complementary* technical skills to your engineering degree
  - B.Commerce, B.Economics, B.BusMangmt, B.Arts, B.Sc(some majors), B.Design (some majors): Add *breath* to your engineering degree
- It is possible to change to or from dual programs and the BE/ME. Application time-lines apply.
Timetables, Changing & Dropping Courses

• Class Allocation is via Allocate+ system via your my.UQ Dashboard: http://my.uq.edu.au/
  1. Go to ‘mySI-net’ to Enrol in chosen course
  2. Go to ‘My Timetable’ to use the allocate+ system to preference class times (Till 4pm Friday 29/1/21).
  3. Classes then allocated automatically with personal timetable released 8/2/2020
  4. Class Adjustment (8/2/21-8/3/21): Didn’t get the time you wanted, or now need to change times? Use ‘My Timetable’ to:
     • Swap to other classes if there is space.
     • Add name to waitlist to swap to preferred class
     • Contact eait.mytimetable@uq.edu.au if you still have unavoidable clashes
  
• Need to change courses? Go to step (1) then (2) or (4) above [depending on when you change]. Adding courses is available till Friday 5/3/2021.

• Need to drop a Courses?
  • International students MUST discuss with EAIT faculty office before reducing below #8
  • Census date (last day to drop a course without financial liability): 31st March 2021
  • Last day to withdraw from a course without academic penalty: 30th April 2021

Save the dates. ✓
Other Enrollment & Planning Considerations

• 450 hours of Professional Practice (EPP) are required in the Bachelor of Engineering (Hons):
  - www.eait.uq.edu.au/engineering-professional-practice
  - Various activities possible

• EAIT Employability Team can help!
  – Guidance and support for your Engineering Professional Practice (EPP)
  – Workshops on planning your job search strategy and applications, resumes, interviews; and individual consultations
  – Industry networking events

• eait.uq.edu.au/employability, Hawken Engineering Building 50-C305
Transitioning to Study at UQ
## Transition – Some Differences

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>HIGH SCHOOL</th>
<th>UNIVERSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priorities</td>
<td><strong>Teachers</strong> and schools set.</td>
<td><strong>You</strong> balance: study, work, fun …</td>
</tr>
<tr>
<td>Study</td>
<td>Mostly in class; homework = back-up.</td>
<td><strong>You</strong> schedule: 2 - 3 h for every h in class.</td>
</tr>
<tr>
<td>Reading/ reviewing</td>
<td>Sometimes listening in class was enough.</td>
<td><strong>You</strong> need to review notes/ texts regularly.</td>
</tr>
<tr>
<td>Due dates</td>
<td><strong>Teachers</strong> remind you.</td>
<td><strong>You</strong>. Reminders not a given – use Course Profiles/ Blackboard.</td>
</tr>
<tr>
<td>Seeking help</td>
<td><strong>Teachers</strong> approach you if they believe you need assistance.</td>
<td><strong>You</strong> need to initiate contact for assistance.</td>
</tr>
<tr>
<td>Availability of help</td>
<td><strong>Teachers</strong> often available during the school day. <strong>Teachers</strong> primary job is teaching students in their classes</td>
<td><strong>You</strong> need to make an appointment if outside scheduled course time. For most lecturers, teaching is only 40% of their job.</td>
</tr>
<tr>
<td>Missing a class</td>
<td><strong>Teachers</strong> provide you with info you missed when you were absent.</td>
<td><strong>You</strong> need to get missed notes from classmates or Blackboard.</td>
</tr>
<tr>
<td>Attending lectures</td>
<td><strong>Teachers</strong> monitor class attendance.</td>
<td><strong>Your</strong> choice.</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>Assessment highly specified</td>
<td>Assessment requirements may include deliberate uncertainty</td>
</tr>
</tbody>
</table>
## Transition – Time Management

Each course is designed with the expectation you spend 10-12 hours per week of combined class/study time to *pass* the course.

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>HIGH SCHOOL</th>
<th>UNIVERSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class time (per week)</td>
<td>30 h (6 h/d)</td>
<td>15 to 20 h (?? h/d)</td>
</tr>
<tr>
<td>Class schedule</td>
<td>Continuous – 0900-1500</td>
<td>Not continuous – 0800-2000</td>
</tr>
<tr>
<td>Yearly commitment</td>
<td>40 weeks (4 terms)</td>
<td>2x 13-week semesters of lectures followed by 1-week for study (swot vac) and 2-weeks exams</td>
</tr>
</tbody>
</table>

- Draw up a weekly schedule of class and study time.
- Use a semester calendar to show assessment submission dates.
If you are moving out of home, this may be much more!

45 h/w .... that's more than a full time job!

Keep work <10 h/w
Secrets to Academic Success

• Maintain your sense of self worth – you got here!

• Remember your goals:
  - Long-term = degree and career
  - Medium term = pass course
  - Short term = assignment submission

• Understand what is required of you

• Use the resources provided, don't focus only on assessment.

• Effective Study Techniques:
  - Attend
  - Participate
  - Practise, practise, practise!!!

• If you are having trouble, seek help early.

You can no more learn engineering by reading the textbook the day before the exam than you can learn to drive a car by reading a book the day before your driving test.

High grades need high effort!

3 = Fail.
Get-Set Quiz: https://getset.uqcloud.net/

Find out your strengths. Review the knowledge you need.

Students entering the first year of engineering bring different levels of knowledge and experience. Some have studied Maths C, Physics and Chemistry whilst others may have only studied one of these subjects.

In addition, there can be variation in the curricula offered by domestic and international schools. This can mean that some students may have skill sets that require additional support to assist with their transition to university.

The information gained through the Get Set Quiz is used in a number of ways:
- The overall cohort knowledge is fed back to first year lecturers so they can tailor their lectures appropriately;
- An individual report is generated indicating where you may need to do some revision and directing you to relevant resources;
- You will become aware of the knowledge expectations for first year engineering and can revise accordingly;
- You may also find that the information helps with selecting your courses.

Results are not used for assessment purposes.

1. Grab a pen and paper.
2. Go to: eait.uq.edu.au/preparation
3. Log on using your UQ login and password and follow the prompts.

63% who completed last year’s Quiz had a GPA > 5.
GPA = Grade Point Average;
4 = Pass, 7 = High distinction

86% who completed the 2019 Quiz passed all their courses.

https://www.eait.uq.edu.au/information-new-students/getting-started-bachelor-engineering-honours
Balance your Life

• Enjoy your independence!
• Ensure you have stable living and transport arrangements
• Study/Work/Social/Hobbies/Family Responsibilities
• Connect with other students: In classes, UQ Clubs and Societies
Women in Engineering: A dedicated program to support current female engineering students throughout their university journey

UQ Innovate: 2200 square metres of makerspace where you can work on university and personal projects

First Year Engineering Learning Centre

The First Year Engineering Learning Centre is a hub for all things related to First Year Engineering!

• Physical Space: 50-C201
  • Study space for group and individual work
  • Lisa Deacon and staff who can help and point you in the right direction.
  • Book an academic advising appointment
  • FYELC Tutors and Mentors
  • Please pay attention to all social distancing and hygiene requirements

• Online:
  - Yr1eng@uq.edu.au, +61 (07) 3346 7881
  - Online presence coming soon!
English for Academic Communication (EAC): Engineering – ENGG1100

EAC: Engineering is a free course that aims to help new students to adjust to a new learning culture, learn about unfamiliar academic genres and achieve success in their studies.

The classes will focus on developing academic literacy skills needed for ENGG1100 assessments because these skills are useful to all students throughout their programs. Workshops include:
- Making accurate and clear language choices
- Public speaking
- Report writing
- Reflective writing in portfolios

Days and times:
Wednesdays 11:00am -1:00pm OR 2:00pm – 4:00 pm
Thursdays 10:00am -12:00pm

Weeks: March 3/4 – May 11/12
Your teacher will email you the zoom link.

https://plus.icte.uq.edu.au/apply_to_courses/EAC
Getting Help And Support

• Help with your academic work?
  - Tutors in class; course coordinators; check course profile and website
  - UQ Library: workshops and support for finding information
  - UQ Student Services Learning advisors & Workshops

• Problems working out what courses to enrol in?
  - Academic Advisors: Book First Year Engineering Learning Centre
  - Academic advisors available 12.00-2.00pm today

• Problems within your courses?
  - Contact the relevant school office
Getting Help And Support Continued

• Problems with your program/degree?
  - Adding or changing courses (subjects) or changing you degree?
  - Interpreting or arranging your timetable?
  - Applying for credit for previous studies?
  - EAIT Faculty Office: 50-S204 (Hawken Building)
  - https://www.eait.uq.edu.au/contact-us

• Student Services: International advisers; Disability Advisers; Counsellors; Accommodation; Employment: https://my.uq.edu.au/contact/student-life

• Look after yourself: Sleep, exercise, eat well

ASK EARLY!

No such thing as a silly question!

Don’t forget your friends and family!