Bachelor of Engineering (Honours) Welcome and Academic Advice Seminar

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Senior Lecturer (Electrical & Biomedical Engineering)
Deputy Associate Dean Academic (First Year)
Some tips & etiquette for using Zoom in a large session:

- During the presentation, leave your microphone muted: stops background noise disturbing the presentation.
- During the presentation, leave your video off to preserve bandwidth to ensure a smooth experience for everyone.
- 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 18 engineering majors
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

Flexible First Year
Discipline specific courses

Entry Year 1 Year 2 Year 3 Year 4 Year 5

Undertake Professional Practice

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.

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

Gain an accredited degree that enables you to work anywhere in the world
Majors developed for the 21st century

Chemical*
  Chemical and Biological
  Chemical and Environmental
  Chemical and Materials
  Chemical and Metallurgical

Civil
  Civil and Fire Safety (BE/ME only)
  Civil and Environmental
  Civil and Geotechnical

Electrical
  Electrical and Biomedical
  Electrical and Computer

Mechanical
  Mechanical and Aerospace
  Mechanical and Materials

Mechatronic

Mining
  Mining and Geotechnical

Software
BE(Hons) Structure

- **Single Major**: 52 units (defined)
  - 12 units (electives with at least 4 from BE (Hons) list)

- **Major with Minor**: 52 units (defined)
  - Minor 8 units (defined)
  - 4 units (electives)

- **Dual or Extended Major**: 60 units (defined)
  - 4 units (electives)
# Year 1 BE(Hons) Enrolment

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>ENGG1211, MATH1050 or MATH1051, Other BE (Hons) course*, Other BE (Hons) course*</td>
</tr>
<tr>
<td>Summer Semester</td>
<td>ENGG1211, MATH1051 Or other course*</td>
</tr>
</tbody>
</table>

**Haven’t Done Maths C??**
- Do MATH1050 (Sem 2)
- Do MATH1051 (Summer)
- Do MATH1052 (Summer)

- If you get a 4 in MATH 1050: recommended to do MATH1051 in summer semester, MATH1052 in Sem 1

**Note:** MATH1050 counts as a non-engineering elective

**Done Maths C (> SA)??**
- Do MATH1051: (Sem 2)
- Do MATH1052: (Summer)

*For other courses, consult program guide or seek academic advice.*
ENGG1211 – Engineering Design

Compulsory in Year 1, Semester 2

An introduction to engineering as a profession

• Team & individual work

• Project work including the Engineers Without Borders (EWB) Challenge

• You will learn about: sustainability, safety, estimation, materials selection, decision making, project management, information literacy, communication (graphics, written, oral), ethics, and prototyping (building)
Physics and Chemistry

If you have NOT done High School Physics
• Enrol in PHYS1171 (Physical Basis of Biological Systems) before taking courses needing Physics
  *Not available if you have SA or higher in (Senior) Physics.

If you have NOT done High School Chemistry and intend to specialise in any of the Chemical based engineering majors or / Civil & Environmental / Materials Engineering
• Enrol in CHEM1090 (Introductory Chemistry)
  *Not available if you have HA or VHA in Senior Chemistry
Should you specialise now?

Keep options open in 1st year (Flexible First Year) & specialise for year 2

OR

Specialise now
(e.g. Choose your major - Chemical, Civil, Electrical …)
Should you specialise now?

Your major (specialisation) will build on your choice of:

**ENGG1300 – Introduction to Electrical Systems**
- Compulsory for all electrical, mechanical, mechatronic, mining, software based engineering majors (except mining & geotechnical)

**ENGG1400 – Engineering Mechanics**
- Compulsory for all civil, mechanical, mechatronic, mining based engineering majors

**ENGG1500 – Engineering Thermodynamics**
- Compulsory for all chemical, environmental, materials, mechanical based engineering majors

*You must do at least 1 from this group; 2 is strongly recommended; and all 3 are needed for some disciplines*
Should you specialise now?

Other courses:

CHEM1100 – Chemistry 1
• Compulsory for all chemical based engineering majors

CSSE1001 – Introduction to Software Engineering 1
• Compulsory for all electrical, mechatronic, software based engineering majors

BIOL1040 – Cells to Organisms
• Possible elective for electrical & biomedical

CHEE1001 – Principles of Biological Engineering
• Compulsory for chemical & biological

PHYS1002 – Electromagnetism & Modern Physics
• Compulsory for all electrical based engineering majors

ERTH1501 – Earth Processes & Geological Materials
• Compulsory for mining, mining & geotechnical, civil & geotechnical engineering

See the BE(Hons) Program Guide for the complete list of majors/minors etc.
Changing Your Mind

Changing between majors is possible, BUT...

- BE (Hons) may take longer than 4 years depending on:
  - overlap between plans
  - when you change
Dual Programs with BE(Hons)

- Arts
- Biotechnology (with Chemical Engineering only)
- Business Management
- Commerce
- Computer Science (not with Software Eng).
- Economics
- Information Technology (not with Software Eng).
- Mathematics
- Science

Most dual degrees are not compatible with BE(Hons) dual and extended majors. See page 7 of the 2020 Program Guide.
Dual Degree Programs

- Dual Degrees Available With BE(hons):
  - Arts
  - Biotechnology (with Chemical Engineering only)
  - Business Management
  - Commerce
  - Computer Science (not with Software Eng).
  - Economics
  - Information Technology (not with Software Eng).
  - Mathematics
  - Science
  [not all majors may be available]

- To enter dual degree if in single degree:
  - Apply via mySI-net or QTAC as per advice on myUQ
  - Must meet entry criteria (OP/rank cut-off and prerequisites for both)

- To drop back to single degree if in dual degree
  - Apply for program change via mySI-net by Friday before Orientation Week - July 31 for Sem 2, 2020)

Typical Year 1 Enrolment Pattern:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>ENGG1211</td>
</tr>
<tr>
<td>Summer</td>
<td>ENGG1211</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Academic advice strongly recommended!
- Engineering duals will typically have 3 (and sometimes 4) Engineering courses per semester in Year 1 & 2
# BE(Hons) Dual Degree Structures

<table>
<thead>
<tr>
<th>Single Major (64 units)</th>
<th>Dual or Extended Major (64 units)</th>
<th>BE (Hons) / BMath (80 units)</th>
<th>BE (Hons) / BSc (80 units)</th>
<th>BE (Hons)/ BInfTech or BCompSc (88 units)</th>
<th>Other BE (Hons) Duals (88 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 units</td>
<td>60 units</td>
<td>60 units</td>
<td>62 units</td>
<td>54 to 62 units</td>
<td>52 to 56 units</td>
</tr>
<tr>
<td>12 units</td>
<td></td>
<td>Single major OR major &amp; minor OR dual/ extended major</td>
<td>Single major OR major &amp; minor OR dual/ extended major</td>
<td>Single major OR selected dual/extended major</td>
<td>Single major only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 units BMath part</td>
<td>18 units BSc part</td>
<td>26 to 34 units BInfTech or BCompSc part</td>
<td>32 to 36 units Other degree</td>
</tr>
</tbody>
</table>

- Single Major (64 units)
- Dual or Extended Major (64 units)
- BE (Hons) / BMath (80 units)
- BE (Hons) / BSc (80 units)
- BE (Hons)/ BInfTech or BCompSc (88 units)
- Other BE (Hons) Duals (88 units)

- Single major OR major & minor OR dual/ extended major
- 20 units BMath part
- 18 units BSc part
- 26 to 34 units BInfTech or BCompSc part
- 32 to 36 units Other degree

- 60 units BE (Hons) part
- 62 units BE (Hons) part
- 54 to 62 units BE (Hons) part
- 52 to 56 units BE (Hons) part

- 52 units
- 62 units
- 54 to 62 units
- 52 to 56 units
Dual Programs

See academic advisers to help choose courses

- BE (Hons)/BSc - do not enrol in STAT1201 or STAT1301 or SCIE1000 or SCIE1100
- BE (Hons)/BBusMan/BCom/BEcon – do not enrol in ECON1310 or ECON1050
  - These cannot be credited towards your BE (Hons)
- Students doing BSc (Physics) must see an engineering academic adviser before enrolling in any physics courses.

Please See Prof Caroline Crosthwaite in academic advising session after this presentation
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
- Commonwealth supported places
  - BUT note that Centrelink Youth Allowance not available for full program
- Allows for
  - More advanced coursework
  - Industry / research centre placement
  - Alternative to dual degree for depth

<table>
<thead>
<tr>
<th></th>
<th>BE (Hons) Year 1</th>
<th>BE (Hons) Year 2</th>
<th>BE (Hons) Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Final decision by end of year 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Continue to BE (Hons)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Apply to BE (Hons)/ME (GPA ≥ 5.0)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE (Hons) Year 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE (Hons)/ME Year 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE (Hons)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE (Hons)/ME Year 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE (Hons)/ME</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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
  – One-on-one employability consultations
  – Tailored program for international students
  – Industry networking events
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>Teachers and schools set.</td>
<td>You balance: study, work, fun ...</td>
</tr>
<tr>
<td>Study</td>
<td>Mostly in class; homework = back-up.</td>
<td>You 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>You need to review notes/ texts regularly.</td>
</tr>
<tr>
<td>Due dates</td>
<td>Teachers remind you.</td>
<td>You. Reminders not a given – use Course Profiles/ Blackboard.</td>
</tr>
<tr>
<td>Seeking help</td>
<td>Teachers approach you if they believe you need assistance.</td>
<td>You need to initiate contact for assistance.</td>
</tr>
<tr>
<td>Availability of help</td>
<td>Teachers often available during the school day. Teachers primary job is teaching students in their classes</td>
<td>You 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>Teachers provide you with info you missed when you were absent.</td>
<td>You need to get missed notes from classmates or Blackboard.</td>
</tr>
<tr>
<td>Attending lectures</td>
<td>Teachers monitor class attendance.</td>
<td>Your 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 – 0800-1900</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 assessments.
- 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.
Step 2

Compulsory Quiz

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.
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

The University of Queensland is the university of choice for women studying engineering in Queensland.

With a dedicated program, through various initiatives and events, the team:

• Supports current female engineering students throughout their university journey
• Connects female students with industry for a smooth workplace transition
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
  • Sheryl and Lisa 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
  • Program of events

• Online:
  - First Year Engineering Learning Centre Community page (login at elearning.uq.edu.au; under my organisations).
  - Yr1eng@uq.edu.au, +61 (07) 3346 7881
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?
  - Program information sessions to follow!
  - Academic Advisors: Via First Year Engineering Learning Centre

• 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 your 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!

Don’t forget your friends and family!

No such thing as a silly question!
What’s Next?

2.45–3.45pm: Engineering Academic Advice.

3.45–5.30pm: EAIT Online Expo
Connect with clubs and societies related to your study areas, Support Teams, and learn about opportunities to get involved.

2.45–3.45pm: Engineering Academic Advice.

3.45–4.30pm: Support and Tips for International Students

4.30–5.30pm: EAIT Online Expo
Connect with clubs and societies related to your study areas, Support Teams, and learn about opportunities to get involved.

All Sessions Online: Details of how to connect available from: https://www.eait.uq.edu.au/orientation
Want to talk to an academic advisor?

- We have academic advisors available for all our disciplines to ask questions.
- We will be using a virtual queue system in padlet: follow the link from the orientation page.