Bachelor of Computer Science

Welcome
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 on zoom 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
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BSc & MSc in CS at U. of Udine, Italy
PhD in CS at U. of Hannover, Germany
  • Information Retrieval

Worked at U. Sheffield iSchool (UK), the eXascale Infolab (CH),
UC Berkeley (US), Yahoo! (ES), L3S Research Center (DE)
U. Queensland since 2017
  - A/Prof. at the School of ITEE

Collaborations with: Amazon, Facebook, Google, IBM, Microsoft, Spotify

www.gianluca-demartini.net
Computer Science - Jobs vs Graduates

The “STEM” problem is in computer science

- 58% of all new jobs in STEM are in computing
- 10% of STEM graduates are in Computer Science

Source: code.org
Data Centers

Source: facebook.com
Challenges and Opportunities of AI

OpenAI built a text generator so good, it’s considered too dangerous to release

Zack Whittaker  @zackwhittaker  /  6 hours ago

Source: techcrunch.com
BCompSci Majors

- Data Science
- Cyber Security
- Programming Languages
- Machine Learning
- Scientific Computing
Essential Information and Getting Started
UQ Terminology

• **Program** = degree you’re studying, e.g. BCompSc or dual degree
• **Course** = subject
  - Each course has a course code (e.g. “CSSE1001”)
• **Unit** = measure of workload of a course
  - Most courses are 2 units
  - Standard study load is 8 units per semester (4 courses)
  - BCompSc require 48 units (typically 6 semesters = 3 years)
• **Faculties**: Administer degree programs
• **Schools**: Teach courses and give academic advice
• Getting Started at UQ : [www.uq.edu.au/startingatuq](http://www.uq.edu.au/startingatuq)
Bachelor of Computer Science Structure

- **No Major**
  - 16 units (BCompSc Core Courses)
  - 2 units (Extension Course)
  - 14 units (Intro and Adv Electives)
  - 16 units (electives)
- **Single Major**
  - 16 units (BCompSc Core Courses)
  - 16 units (BCompSc Core Courses)
  - 16 units (BCompSc Core Courses)
- **Two Major Option**
  - 16 units (BCompSc Core Courses)
  - 16 units (BCompSc Core Courses)
  - 16 units (BCompSc Core Courses)

In BCompSc you can major in:
- Data Science
- Cyber Security
- Programming Languages
- Machine Learning
- Scientific Computing

See [https://www.itee.uq.edu.au/bachelor-computer-science](https://www.itee.uq.edu.au/bachelor-computer-science)
Year 1 – Bachelor of Computer Science Enrolment

**Courses**

**Semester 1**
- CSSE1001*
- INFS1200*
- MATH1061*
- Elective or Major specific

**Semester 2**
- CSSE2002*
- CSSE2010*
- STAT1201*
- Elective or Major specific

*Offered both semesters

**Done Maths C (> SA)??**
- Do MATH1051 (Sem 1)
- Or do MATH1071: Strong Interest in Maths or Maths dual degree (Recommend >HA in Maths C)

**Haven’t Done Maths C??**
- Do MATH1050 (Sem 1)
- Do MATH1051 (Sem 2)
Note: MATH1050 counts as an elective – not part of the BCompSc part A, B or C

Seek advice about electives

See [https://www.itee.uq.edu.au/bachelor-computer-science](https://www.itee.uq.edu.au/bachelor-computer-science) for study plans for all majors
Dual Degree Programs

- **Dual Degrees Available With BCompSc:**
  - Arts
  - Engineering (Hons)
  - Science
  - Mathematics
  [not all majors may be available]

- **Vertical dual Degrees (w/ Master of Cyber Security or w/ Master of Data Science)**

- **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

### Typical Year 1 Enrolment Pattern:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CS course</td>
</tr>
<tr>
<td>2</td>
<td>CS course</td>
</tr>
</tbody>
</table>

- **Academic advice strongly recommended!**
- **Engineering duals will typically have 3 Engineering courses per semester in Year 1 & 2**
Other Enrollment Planning Considerations

- **Credit for Previous Studies:**
  - *Previous UQ students:* Credit will be automatically assessed by Faculty
  - *Other students:* Apply to Faculty and include course outlines and official, original transcripts from the other institution

  - Semester long exchanges: Good to start planning in year 1.
  - Short Term Experiences

- **Honours Year:**
  - Optional fourth year after completion of your program
  - Advanced coursework and honours project
Tips for Successful Transition to Study at UQ
## Transition – Some Differences from High School

<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.</td>
<td>You need to make an appointment if outside scheduled course time.</td>
</tr>
<tr>
<td></td>
<td>Teachers primary job is teaching students in their classes</td>
<td>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.

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<th>ISSUE</th>
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</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.
Balance your Life & Enjoy Your time at UQ

• Enjoy your independence!
• Ensure you have stable living and transport arrangements
• Carefully balance Study/Work/Social/Hobbies/Family Responsibilities
• Connect with other students: In classes, UQ Clubs and Societies: http://www.uqu.com.au/clubs-societies
  - Clubs and Societies day today
• Computing related societies:
  - UQ Computing Society: http://uqcs.org.au
  - UQ Cyber Squad: https://cybersquad.uqcloud.net/
Getting Help And Support

• Help with your academic work?
  - Tutors in class; course coordinators; check course profile and website
  - ITEE learning centre 78-217, and tutors: 78-204
  - UQ Library: workshops and support for finding information
  - Student Services Learning advisors & Workshops

• Problems working out what courses to enrol in or problems within your courses?
  - ITEE School Office: 78-425 (GPSouth Building)
  - Book appointments here to see academic advisors

• Problems with your program/degree?
  - EAIT Faculty Office: 50-S204 (Hawken Building)

• EAIT Student Employability Team: Help get prepared for professional job applications! www.eait.uq.edu.au/employability, 50-C305

• Student Services: International advisers; Disability Advisers; Counsellors; Accommodation; Employment

• Look after yourself: Sleep, exercise, eat well
BCompSci First Year Advisor

Matt Luscombe
78-457 (Level 4 of GP South)
m.luscombe@uq.edu.au

Formal Academic Advising appointments via email to:
studentenquiries@itee.uq.edu.au

- Study plans,
- UQ Abroad study plans,
- Show Cause study plans
- Elective selection
- Major selection
- General advice about being at UQ/ITEE
What’s Next?

• **12.00-1.15pm**: Welcome Presentation (UQ Centre – Lecture Theatre, 27A-220)

• **1.15-2.00pm**:
  - EAIT Expo & Lunch: Meet student societies and ways you can get involved, and grab some lunch.
  - Drop-in Academic Advising: Got questions about your courses for this semester? or a particular specialisation? (Level 2, Building 32)

• **2.30pm-4.30pm**: Orientation Activities – Design Challenge (49-301). Meet at room, or outside UQ centre at 2.15pm

UQ Nav App: https://my.uq.edu.au/mobile-apps