Bachelor of Computer Science

Welcome

(This is the 1.45pm session – We will be starting at ~1.50pm)
Gianluca Demartini

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.gianlucaademartini.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
Bachelor of Computer Science Structure

No Major

24 units (part A) (compulsory)

6 units (part B)

6 units (part C)

12 units (electives)

Single Major

24 units (part A) (compulsory)

12 units (part E)

12 units (electives)

48 units

In BCompSc you can major in:

- Data Science
- Cyber Security
- Programming Languages
- Machine Learning
- Scientific Computing
Year 1 – Bachelor of Computer Science Enrolment

Semester 1
- CSSE1001*
- INFS1200*
- MATH1061*
- MATH1050*
  or MATH1051*
  or MATH1071

Semester 2
- CSSE2002*
- CSSE2010*
- Elective or Major specific
- MATH1051*
  or Elective

*Offered both semesters

Seek advice about electives

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
Dual Degree Programs

- Dual Degrees Available With BCompSc:
  - Arts
  - Engineering (Hons)
  - Science
  - Mathematics
  [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

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. 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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</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
  - Clubs and Societies day today
• Computing related societies:
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

ASK EARLY!

No such thing as a silly question!
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?

**Now – ~3pm: Advising (here, me and Wen Hua)**
Ask us questions about study plans, majors, career paths, math courses, research projects, etc.

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.

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