

Bachelor of Computer Systems Engineering (Honours)/Bachelor of Computer Science

DATA SCIENCE MAJOR

 Commencing in 2017 and 2018 only

 Studying at Callaghan



This Program Plan is an enrolment guide to ensure you are on track to graduate. If at any time you wish to vary from this program plan seek prior advice from your [Program Advisor](#) to ensure you remain on track.

Semester 1

Semester 2

Year	Semester 1				Semester 2				
Year 1	COMP1010 Computing Fundamentals	MATH1110 * Mathematics for Engineering, Science & Technology 1	ENGG1003 Introduction to Procedural Programming	SENG1110 Object Orientated Programming	ELEC1310 Introduction to Electrical Engineering	ELEC1710 Digital and Computer Electronics 1	PHYS1220 Advanced Physics 2	MATH1510 Discrete Mathematics	
Year 2	ENGG1500 Introduction to Professional Engineering	MATH1120 * Mathematics for Engineering, Science and Technology 2	ELEC2320 Electrical and Electronic Circuits	STAT1070 Statistics for the Sciences	SENG1050 Web Technologies	SENG1120 Data Structures	COMP1140 Database and Information Management	COMP2230 Introduction to Algorithmics	STAT2110 Engineering Statistics
Year 3	ENGG2500 Sustainable Engineering Practice	ELEC2720 Introduction to Embedded Computing	SENG2130 System Analysis and Design	SENG2050 Web Engineering	ELEC2430 Circuits and Signals	COMP2240 Operating Systems	SENG2250 Computing Security	SENG2260 Human-Computer Interaction	
Year 4	ENGG3500 Managing Engineering Projects	ELEC3730 Digital and Computer Electronics 2	COMP2270 Theory of Computation	DIRECTED Computer Systems	ELEC3850 Electrical Engineering Design & Practice	ELEC3540 Analog and Digital Communications	ELEC3240 Analog Electronics	ELEC3500 Telecommunication Networks	
Year 5	ELEC4840A Final Year Project A	ELEC4720 Programmable Logic Design	COMP3350 Advanced Database	COMP3330 Machine Intelligence	ELEC4840B Final Year Project B (20 units) <i>This course must be taken following ELEC4840A</i>		COMP3340 Data Mining	ENGG4500 Engineering Complexity	

Professional Practice: Industrial Experience 12 weeks

Program Plan Key:  = Core  = Directed  = Major  = [Compulsory Program Requirement](#)

Bachelor of Computer Systems Engineering (Honours)/Bachelor of Computer Science

SOFTWARE DEVELOPMENT MAJOR

 Commencing in 2017 and 2018 only

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See the next page for some helpful hints & tips!



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Semester 1

Semester 2

Year 1	COMP1010 Computing Fundamentals	MATH1110 * Mathematics for Engineering, Science & Technology 1	ENGG1003 Introduction to Procedural Programming	SENG1110 Object Orientated Programming	ELEC1310 Introduction to Electrical Engineering	ELEC1710 Digital and Computer Electronics 1	PHYS1220 Advanced Physics 2	MATH1510 Discrete Mathematics
Year 2	ENGG1500 Introduction to Professional Engineering	MATH1120 * Mathematics for Engineering, Science and Technology 2	ELEC2320 Electrical and Electronic Circuits	SENG2130 System Analysis and Design	SENG1050 Web Technologies	SENG1120 Data Structures	COMP1140 Database and Information Management	COMP2230 Introduction to Algorithmics
Year 3	ENGG2500 Sustainable Engineering Practice	ELEC2720 Introduction to Embedded Computing	COMP2270 Theory of Computation	SENG2050 Web Engineering	ELEC2430 Circuits and Signals	COMP2240 Operating Systems	SENG2250 Computing Security	STAT2110 Engineering Statistics
Year 4	ENGG3500 Managing Engineering Projects	ELEC3730 Digital and Computer Electronics 2	SENG2200 Programming Languages and Paradigms	DIRECTED Computer Systems	SENG2260 Human-Computer Interaction	ELEC3850 Electrical Engineering Design & Practice	ELEC3540 Analog and Digital Communications	ELEC3240 Analog Electronics
Year 5	ELEC4840A Final Year Project A	ELEC4720 Programmable Logic Design	DIRECTED Software Development Replaces INFT3100	SENG3320 Software Verification and Validation	ELEC4840B Final Year Project B (20 units) <i>This course must be taken following ELEC4840A</i>	ENGG4500 Engineering Complexity	ELEC3500 Telecommunication Networks	

Professional Practice: Industrial Experience 12 weeks

Program Plan Key:  = Core  = Directed  = Major  = [Compulsory Program Requirement](#)

To be eligible to graduate make sure you have completed 400 or 410 units (10 units = 1 course unless otherwise specified) which meet the following criteria:

✓ Core courses – 360 units.

* Enrolment in MATH courses is based on your assumed knowledge. To find out which MATH courses you should enrol in please see the [Enrolling in Maths information](#). More information in your Program Handbook.

✓ Computer Science Major courses, either;

- Data Science - 40 units of compulsory courses
- Software Development - 30 units; including 20 units of compulsory courses and 10 units of directed courses.

✓ It is also a requirement that students complete a total of 12 weeks of [industrial experience](#).

✓ The duration of this program is 5 years full time (40 units per semester) or part time equivalent.

✓ The maximum time to complete this program is 12 years.



Some courses have assumed knowledge and/or requisites, please refer to the individual [Course Handbook](#). The Program Handbook has valuable information on program structure and requirements, if you are intending on studying part time or varying from this program plan please seek prior advice from your [Program Advisor](#).

See the
next page
for a list of
Directed
courses

Bachelor of Computer Systems Engineering (Honours) / Bachelor of Computer Science

Directed Courses – Computer Systems

Subject to change - Please refer to the program handbook for up to date information.

Choose 10 units from the Computer Systems Directed Course List	ELEC3400 Signal Processing
	ELEC4210 Electronics Design
	ELEC4700 Advanced Computer Systems
	PHYS3360 Advanced Electromagnetism

Directed Courses – Computer Science, Software Development Major

Subject to change - Please refer to the program handbook for up to date information.

Choose 10 units from the Software Development Directed Course List	INFT2150 Business Analysis
	COMP3260 Data Security
	COMP3320 Computer Graphics
	COMP3350 Advanced Database
	INFT3950 Games Design
	INFT3960 Games Production

Helpful Hints & Tips

ENROLMENT HELP



Need help? >>
Ask UON >>



How do I use the Web Timetable? >>

RULES

It is important to follow this Program Plan.

You cannot repeat a course you've passed to try and get a better grade.

You cannot enrol in any extra courses not required by your program >>

INFO FOR NEW STUDENTS



First year undergraduate students usually only enrol in 1000 level courses >>

New Postgraduate students should only enrol in 6000 level courses >>



Find out all you need to know about getting started at uni >>

UNDERSTANDING COURSES & PROGRAMS



Not sure what courses to study? >>



Understanding program and course jargon >>



Understanding UON Jargon >>

PRIOR STUDY



Check you have met the assumed knowledge and requisites for courses before enrolling >>



Have you studied elsewhere or transferred programs? Don't forget to apply for credit >>

CONSIDERING A BREAK?



Need to take a break? This is called a 'leave of absence'. Check if you are eligible >>



Planning on going overseas? Keep electives free, so it's easier for you to receive credit for your overseas studies >>



UON offers a range of support services to assist with your health and wellbeing >>

MORE QUESTIONS?

We are here to answer questions about your program. Talk to us your way!

Ask UON

1300 ASK UON

Visit Student Central

Message us on Facebook

or Twitter

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