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

MATHEMATICS AND STATISTICS MAJOR

Commencing in Semester 1 2017 to 2019 **Studying at Callaghan**

See the next page for some helpful hints & tips!

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 1	ENGG1500 Introduction to Professional Engineering	ENGG1003 Introduction to Procedural Programming	SENG1110 Object Oriented Programming	MATH1210* Mathematical Discovery 1 *(standard pathway)* Or MATH1110* Mathematics for Engineering, Science and Technology 1 *(alternative pathway)*	ELEC1310 Introduction to Electrical Engineering	ELEC1710 Digital and Computer Electronics 1	SENG1120 Data Structures	MATH1220 Mathematical Discovery 2 *(standard pathway)* Or MATH1120 Mathematics for Engineering, Science and Technology 2 *(alternative pathway)*
Year 2	ELEC2320 Electrical and Electronic Circuits	ELEC2720 Introduction to Embedded Computing	ENGG2500 Sustainable Engineering Practice	ELECTIVE *(standard pathway)* Or MATH2340 Linearity and Continuity *(alternative pathway)*	MATH1800 Mathematical Modelling	PHYS1220 Advanced Physics II	ELEC2430 Circuits and Signals	STAT2110 Engineering Statistics
Year 3	SENG2050 Web Engineering	ELEC3730 Digital and Computer Electronics 2	ENGG3500 Managing Engineering Projects	DIRECTED Maths 2000 level	SENG2250 System and Network Security	MATH2310 Calculus of Science and Engineering	MATH2320 Linear Algebra	ELEC3240 Analog Electronics
Year 4	DIRECTED	DIRECTED Maths 3000 level	ELECTIVE	ELECTIVE	ELEC3850 Elec Engineering Design & Practice	ELEC3540 Analog and Digital Communication	ELEC3500 Telecommuni-cation Networks	DIRECTED Maths 3000 level	DIRECTED Maths 3000 level
Year 5	ELEC4840A Final Year Engineering Project Part A	DIRECTED Maths 3000 level	DIRECTED Maths 3000 level	ELECTIVE	ELEC4840B Final Year Engineering Project Part B (20 units) *This course **must** be taken following ELEC4840A*		ENGG4500 Engineering Complexity	ELEC4720 Programmable Logic Design

Professional Practice: Industrial Experience 12 weeks

Program Plan Key: = Core = Major = Directed = Elective = Compulsory Program Requirement

Information correct as of May 2019 and subject to change. Program Code: 40087 CRICOS Code: 088928B CRICOS Provider: 00109J

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

- ✓ Core courses - 300 units.
  - *Enrolment in Core 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.
  - Students may enrol in the *Standard Maths Pathway*, consisting of MATH1210 and MATH1220, or the *Alternative Maths Pathway,* consisting of MATH1110, MATH1120 and MATH2430. Students enrolling in the Alternative Pathway will complete MATH2430 in place of 10 units of electives.
- ✓ Directed Courses – 10 units, visit the Program Handbook for more information.
- ✓ Major courses – 60 units. Consisting of:
  - 10 units of 2000 level directed courses for the Mathematics and Statistics major
  - 50 units of 3000 level directed courses for the Mathematics and Statistics major
- ✓ Elective courses – 40 units. Refer to the Program Handbook for the list 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.

See the next page for a list of Directed courses

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.

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Mathematics and Statistics Major

Directed Courses

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

Choose **10 units** from this list of Mathematics and Statistics 2000 level directed courses	MATH2330 Analysis MATH2730 Operations Research 1 STAT2000 Applied Statistics and Research Methods	
Choose **50 units** from this List of Mathematics and Statistics 3000 level directed courses. *Note: must include at least one of either MATH3120, MATH3170, MATH3840 or MATH3850*	MATH3120 Algebra MATH3170 Number Theory MATH3180 Topology MATH3205 Fourier Analysis MATH3210 Directed Studies in Mathematics MATH3242 Complex Analysis MATH3400 Research Topics in Mathematics MATH3510 Combinatorics and Graph Theory MATH3700 Advanced Differential Equations MATH3820 Numerical Methods MATH3830 Operations Research 2	MATH3840 Optimisation in Business and Industry MATH3850 Industrial Project STAT3010 Statistical Inference STAT3030 Generalised Linear Models STAT3040 Time Series Analysis STAT3100 Systems Thinking for an Integrated Workforce STAT3120 Applied Bayesian Methods STAT3170 Surveys and Experiments STAT3990 Topics in Statistics
Choose **10 units** from this list of Engineering directed courses	ELEC3400 Signal Processing ELEC4210 Electronics Design ELEC4700 Advanced Computer Systems PHYS3360 Advanced Electromagnetism	

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
- UONline via myUON