PROGRAM PLAN

BACHELOR OF MEDICAL ENGINEERING (HONOURS)

Medical Signal Analysis Major

PROGRAM OPTION:
Full time or Part time

START DATE:
Semester 1 2018 to 2020

LOCATION:
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 advice from your Academic Program Advisor to ensure you remain on track.

PROGRAM HANDBOOK
COURSE HANDBOOK

NAME:

STUDENT NO.:

COURSE STATUS KEY
C = Completed
En = Enrolled
NS = Not Started

YEAR 1	SEMESTER 1	**ENGG1003** Introduction to Procedural Programming **COMPULSORY**	**ENGG1500** Introduction to Professional Engineering **CORE**	**HUBS1401** Human Bioscience **CORE**	**MATH1110** Mathematics for Engineering, Science and Technology 1 **CORE** ***Replaces** option of MATH1110 **OR** MATH1210*	SEMESTER 2	**ELEC1310** Introduction to Electrical Engineering **COMPULSORY**	**ELEC1710** Digital and Computer Electronics 1 **COMPULSORY**	**HUBS1420** Terminology and Communication in Biomedicine **CORE** *In 2021 changed from Sem 2 to Sem 1*	**MATH1120** Mathematics for Engineering, Science and Technology 2 **CORE** ***Replaces** option of MATH1120 **OR** MATH1220*
YEAR 2	SEMESTER 1	**CHEM1010** Introductory Chemistry I **CORE**	**ELECTIVE*** 2000 level or higher **ELECTIVE**	**HUBS1105** Musculoskeletal Anatomy **CORE**	**PHYS1210** Advanced Physics I **COMPULSORY**	SEMESTER 2	**ENGG2500** Sustainable Engineering Practice **CORE** *In 2021 changed from Sem 1 to Sem 2*	**HUBS2103** Neural and Visceral Anatomy **CORE**	**MATH2310** Calculus of Science & Engineering **COMPULSORY**	**PHYS1220** Advanced Physics II **COMPULSORY**
YEAR 3	SEMESTER 1	**DIRECTED** **DIRECTED**	**ELECTIVE*** 2000 level or higher **ELECTIVE**	**ENGG3500** Managing Engineering Projects **CORE**	**HUBS2206** Human Biochemistry and Cell Biology **CORE**	SEMESTER 2	**ELEC2430** Circuits and Signals **COMPULSORY**	**HUB3302** Bioinformatics and Functional Genomics **COMPULSORY** *In 2021 changed from Sem 1 to Sem 2*	**MENG3450** Medical Imaging **COMPULSORY**	**MENG3800** Medical Engineering Research **CORE**
YEAR 4	SEMESTER 1	**DIRECTED** **DIRECTED**	**ELEC3400** Signal Processing **COMPULSORY**	**ELECTIVE*** 2000 level or higher **ELECTIVE**	**MENG4800A** Medical Engineering Project A **CORE**	SEMESTER 2	**ELECTIVE*** 2000 level or higher **ELECTIVE**	**ENGG4500** Engineering Complexity **CORE**	**MENG4800B** Medical Engineering Project B *This course must be taken following MENG4800A* ***(20 units)*** **CORE**	

COMPULSORY PROFESSIONAL PRACTICE: INDUSTRIAL EXPERIENCE 12 WEEKS

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To be eligible to graduate make sure you have completed 320 units (10 units = 1 course unless otherwise specified) which meet the following criteria:

- **Core and Compulsory courses –** 260 units

  Prior to 2021**,** students could choose to complete either MATH1110 and MATH1120, ***OR*** MATH1210 and MATH1220. Choice of maths courses is based on your assumed knowledge. To find out which MATH course you should enrol in please see the **Enrolling in Maths information**. More information is in your **Program Handbook**.

  After 2021**,** the option to do MATH1210 and MATH1220 has been removed from the program. ***From 2021 onwards***: 1) if you have not yet completed MATH1210 you must complete MATH1110; and 2) if you haven't completed MATH1220 then you must complete MATH1120.
- **Directed courses** – 20 units.
- * **Electives** – 40 units, visit the **Program Handbook** for more information. Students who do not meet the enrolment requisite for MATH1110 must take MATH1002. Only students who must take MATH1002 will be permitted to take 130 units at the 1000 level. For these students MATH1002 will count for 10 units of electives, the remaining electives (30 units total) must be taken at the 2000 level and above.
- * Students must not exceed 120 units at 1000 level in this program
- It is also a requirement that students complete a total of 12 weeks of **industrial experience**.
- The duration of this program is 4 year full-time (40 units per semester) or part-time equivalent.
- The maximum time to complete this program is 10 years.

Some courses have assumed knowledge and/or requisites, please refer to the individual **Course Handbook**. Please refer to the **Program Handbook** for specific information on program structure. If you are intending varying from this program plan please seek advice from your **Academic Program Advisor**.

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DIRECTED COURSES

Complete 20 units from:

ELEC2320: Electrical and Electronic Circuits
ELEC3540: Analog and Digital Communications
ENGG2440: Modelling and Control
HUBS2203: Introductory Pharmacology

DIRECTED COURSE

Removed from the Program in 2021
If you have not already completed these courses prior to 2021 then you choose a different Directed course in the available list:

HUB3512: Neurobiology of Mental Illness
PHYS2160: Modern Optics