RECOMMENDED STUDY PLAN   2022

DEGREE Bachelor of Engineering (Honours) – Bachelor of Information Technology

NAME _____   MAJOR Mechanical Engineering (MEN)

To assist you with subject information, we recommend you consult with your CSE Course/Major Advisor and refer to Subject Search. If you would prefer a part-time study plan, please adjust the below planner, reviewing subject prerequisites to ensure you are on track for course completion.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 1	**Degree Core:** EG1000 Engineering 1	**Degree Core:** EG1010 Process Engineering
	Degree Core: EG1002 Computing and Sensors	**Degree Core:** EG1011 Statics and Dynamics PREREQ: PH1005 OR (PHYSICS AND MATHS C)
	Degree Core: MA1000 Mathematical Foundations PREREQ: MA1020 OR MATHS B OR MATHS C	**Degree Core:** EG1012 Electric Circuits
	Degree Core: PH1005 Advanced Stream Physics 1 PREREQ: MATHS B OR MA1020 OR MA1000 OR MA1008	**Degree Core:** MA1003 Mathematical Techniques PREREQ: MA1000 OR MA1011 OR MA1009

*Students may be required to take MA1020 in SP3 which will count as an elective line.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	**Degree Core:** MA2000 Mathematics for Scientists and Engineers PREREQ: MA1003	**Major Core:** EG2010 Materials Science and Engineering
	Major Core: ME2512 Thermofluid Mechanics PREREQ: EG1011	**Major Core:** ME2525 Machine Element Design PREREQ: CS2001
	Major Core: CS2001 Engineering Strength of Materials PREREQ: EG1011	

Trimester 1 (Feb-May)	Trimester 3 (Sept-Dec)
Degree Core: CP1402 Internet Fundamentals	**Degree Core:** CP1403 Design Thinking
	Degree Core: CP1404 Programming II PREREQ: CP1401 OR EG1002

Year 3	Study Period 1 - SP1	Study Period 2 - SP2
	Degree Core: EG3000 Introduction to Systems Engineering and Project Management **PREREQ: EG1000 AND EG1002 AND EG1010 AND EG1011 AND EG1012 AND MA1000 AND MA1003 AND (PH1005 OR EG1001) OR 36CP**	**Major Core:** EE3600 Automatic Control 1 **PREREQ: EG1012 AND MA2000**
	Major Core: ME2521 Dynamics of Machine Elements **PREREQ: EG1011**	**Major Core:** CS3008 Fluid Mechanics **PREREQ: MA2000 AND ME2512**
	List Options: *see tables below for details*	**Major Core:** ME3512 Heat and Mass Transfer **PREREQ: MA2000**
		Major Core: ME3525 Mechanical Design **PREREQ: ME2525**

Trimester TBA
Degree Core: CP2406 Programming III **PREREQ: CP1404**

Year 4	Study Period 1 - SP1	Study Period 2 - SP2
	Major Core: EG3001 Finite Element Analysis **PREREQ: EG1002 AND EG1011 AND MA2000**	**Major Core:** EG4013 Asset Management, Maintenance and Reliability **PREREQ: (EG1000 AND EG1002 AND EG1010 AND EG1011 AND EG1012 AND MA1000 AND MA1003 AND (PH1005 OR EG1001)) OR 36CP**
	Major Core: ME3511 Dynamics and Acoustics **PREREQ: MA2000 AND ME2521**	**Major Core:** ME4515 Advanced Mechanical Engineering Design **PREREQ: ME3525**
	Major Core: ME3515 Advanced Manufacturing Engineering – *offered EVEN years only** **PREREQ: ME2525**	

Trimester 3 (Sept-Dec)
Degree Core: CP2404 Database Modelling

Trimester TBA	
Degree Core: CP3407 Advanced Software Engineering **PREREQ: CP1404 AND 18CP OF SUBJECTS**	**List Options:** *see tables below for details*

*Will need to swap with a List subject depending on the year.

Year 5	Study Period 1 - SP1	Study Period 2 - SP2
	Degree Core: EG4011 Thesis Part 1 of 2 **PREREQ: 72CP**	**Degree Core:** EG4012 Thesis Part 2 of 2 **PREREQ: EG4011**
	Major Core: ME4513 Advanced Fluid Mechanics **PREREQ: CS3008**	**Major Core:** ME4522 Energy, Conversion and Refrigeration **PREREQ: ME2512**
		List Options: *see tables below for details*

Trimester TBA		
List Options: *see tables below for details*	**List Options:** *see tables below for details*	**List Options:** *see tables below for details*

Further Degree Options:

Select 1 subject from List 1 **AND** Select 3 subjects from List 2 **AND** Select any 2 undergraduate subjects OR if required to take MA1020 select 1 undergraduate subject.

List 1: Select 1 subject		
Trimester 1 (Feb-May)	**Trimester 2 (Jun-Aug)**	**Trimester 3 (Sept-Dec)**
CP1406 Web Design and Development	CP1407 Introductory Machine Learning and Data Science	
Trimester TBA		
CP2410 Algorithms and Data Structures **PREREQ: 6CP OF CP SUBJECTS**	CP2405 Collective Intelligence and Entrepreneurship **PREREQ: 24CP**	CP2409 Network Forensics and Data Communications **PREREQ: CP1402**
CP2411 3D Modelling and Animation **PREREQ: 6CP OF CP SUBJECTS**	CP2408 Design Thinking and Creative IT Industries **PREREQ: CP1403**	CP2412 Game Design and Technologies **PREREQ: 6CP OF CP SUBJECTS**

List 2: Select 3 subjects		
Trimester TBA		
CP3402 Content Management Systems **PREREQ: (CP1404 OR CP1804 AND CP1406 OR CP1806) OR CP2010, AND 24CP OF CP SUBJECTS**	~~CP3404 Information Security~~ - already in Major ~~**PREREQ: 18CP OF SUBJECTS, INLCUDING CP1402**~~	~~CP3406 Mobile Computing~~ already in Major ~~**PREREQ: CP1404 OR CP1804**~~
CP3403 Data Mining **PREREQ: (CP2403 AND CP2404) OR (18 CREDIT POINTS OF UNDERGRADUATE SUBJECTS INCLUDING 6 CREDIT POINTS OF CP SUBJECTS)**	CP3405 Design Thinking and Project Management **PREREQ: CP2408**	CP3408 Game Engine and Simulation **PREREQ: (CP1404 OR CP1804) AND 18 CP OF CP SUBJECTS**