

Engineering Units for Semester 2, 2019

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No.	Subject Code Old/ New	Subject Name Old/ New (if applicable)	Pre-requisites	Remarks
0	EXAMPLE e.g. MEE10001	EXAMPLE e.g. Engineering Materials	EXAMPLE e.g. Nil	EXAMPLE e.g. Offer every semester. Effective Sem 1, 2017, MEE10001 will be renamed from "Materials and Processes" to "Engineering Materials" to be consistent with Hawthorn Campus. HEC2322 in Chemical Engineering will be renamed from "Engineering Materials" to "Engineering Materials and Characterisation"
1	ENG10001	Engineering, Design and Innovation	Nil	Also offered in October Term
2	ENG10002	Engineering Materials	Nil	Also offered in October Term
3	ENG10003	Mechanics of Structures	Nil	
4	ENG10004	Digital and Data Systems	Nil	
5	MTH10012	Calculus and Applications	Nil	Also offered in October Term
6	MTH10013	Linear Algebra and Applications	Nil	
7	PHY10001	Energy and Motion	Nil	Also offered in October Term
8	PHY10004	Electronics and Electromagnetism	Nil	
9	MEE20004	Structural Mechanics	CVE10004/ENG10003	
10	CVE20002	Computer Aided Engineering Civil	CVE10002 or pre/co-requisite ENG10003	
11	MME30001	Engineering Management 1	100 CPS	Also offered in Winter Term
12	MEE20003	Fluid Mechanics	MTH10007/MTH10012&MTH10013	
13	CVE20003	Design of Concrete Structures	MEE20004	
14	CVE20005	Road Engineering	CVE20001	
15	CVE30004	Cost Engineering	175 CPS	
16	CVE40004	Water and Env. Engineering	CVE30001	
17	CVE40001	Geotechnical Engineering	CVE20004	
18	MME40001	Engineering Management 2	100 CPS	Also offered in Winter Term
19	CVE40006	Infrastructure Design Project	CVE20003 & CVE30002	
20	CVE40008	Final Year Research Project 1 (Civil)	287.5 CPS	
21	CVE40009	Final Year Research Project 2 (Civil)	CVE40008	
22	EEE20001	Digital Electronics Design	Nil	
23	SWE20004	Technical Software Development	ENG10004/COS10001/COS10009/RME10001	
24	TNE30003	Communications Principles	MTH10012 & MTH10013	
25	EEE20003	Embedded Microcontrollers	EEE20001 & SWE20004	
26	EEE20004	Analogue Electronics 1	EEE20002	
27	EEE20005	Electrical Machines	EEE20002 & MTH10012	
28	EEE30004	Digital Signal Processing	(MTH20004/MTH20007/MTH20005 / MTH20010 / MTH20014) and (EEE20002 / EEE20006)	
29	EEE30005	Electrical Integrated Design Project	EEE30002	
30	EEE40005	Power Electronics	EEE20005	
31	EEE40011	Final Year Research Project 1 (BEET)	287.5 credit points	
32	EEE40012	Final Year Research Project 2 (BEET)	EEE40011	
33	MTH20011	Mathematics 4A	MTH10007 or (both MTH10013 & MTH10012)	
34	MEE20005	Materials & Manufacturing 1	MEE10001a or ENG10002	
35	MEE20006	Machine Dynamics 1	(both MTH10007 & PHY10001) or MTH10013	
36	MEE40001	Thermodynamics 2	MTH20007	
37	MEE30004	Solid Mechanics	MEE20004	
38	MEE40002	Mechanical Systems Design	MEE30003	
39	MEE40008	Final Year Research Project 1 (Mechanical)	287.5 CPS	
40	MEE40004	Fluid Mechanics 2	MEE20003	
41	MEE40009	Final Year Research Project 2 (Mechanical)	MEE40008	
42	RME20001	Electrical Actuators and Sensors	PHY10004/EEE10001	
43	COS20007	Object Oriented Programming	COS10009	
44	RME40002	Mechatronics Systems Design	EEE20003	
45	RME30003	Robotic Control	RME30002	
46	RME40005	Final Year Research Project 1	287.5 credit points	
47	RME40006	Final Year Research Project 2	RME40005	
48	CSM80003	Construction Law	Nil (for MCM) 250CPS (Elective for Undergraduate Students)	Unit from Master of Construction Management / Elective Unit for undergraduate Engineering
49	CSM80006	Engineering Project Management	Nil (for MCM) 250CPS (Elective for Undergraduate Students)	Unit from Master of Construction Management / Elective Unit for undergraduate of Engineering
50	RSK80004	Introduction to Risk and Due Diligence	Nil (for MCM) 250CPS (Elective for Undergraduate Students)	Unit from Master of Construction Management / Elective Unit for undergraduate of Engineering
51	ICT80011	Research Methods	Nil (for MCM)	Unit from Master of Construction Management
52	CMS80005	Engineering Project Control	Nil (for MCM)	Unit from Master of Construction Management
53	MME80001	Resource Planning and Management	Nil (for MCM) 250CPS (Elective for Undergraduate Students)	Unit from Master of Construction Management / Elective Unit for undergraduate of Engineering
54	CVE80001	Research Paper	ICT80011 (for MCM)	Unit from Master of Construction Management
55	CVE20007	Sustainable Built Environment	200 Credit Points	Elective Unit for (Civil)
56	CEE20004	Safe and Sustainable Design	CVE10002 or ENG10001	Chemical Engineering Unit / Elective Unit for (Civil)
57	CEE20002	Chemical Engineering Thermodynamics	Nil	Chemical Engineering Unit
58	CEE20003	Fluid Mechanics C	MTH10007 or MTH10012 & MTH10013	Chemical Engineering Unit
59	CEE30001	Transport Phenomena	HEC2421&HEC2411 or CEE20002 & CEE20003	Chemical Engineering Unit
60	CEE30005	Multiphase Processes	HEC2421/CEE20003	Chemical Engineering Unit
61	CEE30003	Process Mass Transfer	HEC2411/CEE20002	Chemical Engineering Unit
62	CEE40001	Final Year Research Project 1 (Chemical)	275 Credit points	Chemical Engineering Unit
63	CEE40002	Process Plant Design 1	HEC3523 & 275 Credit points	Chemical Engineering Unit
64	CEE40003	Final Year Research Project 2 (Chemical)	CEE40001/HEC4771	Chemical Engineering Unit

65	CEE40004	Process Plant Design 2	CEE40002	Chemical Engineering Unit	ChemE/Science
66	CEE40015	Chemical Engineering Computations	CEE30006	Chemical Engineering Unit	ChemE/Science
67	PEH20006	Water Science	CHE10001 or CEE20005	Science Unit / Elective Unit for (Chemical Engineering / Mechanical)	
68	NPS10001	Introduction to e-Science	Nil	Science Unit / Elective Unit for (Chemical Engineering/Mechanical/Electrical and Electronic)	
69	BIO10003	Concepts of Biotechnology	Nil	Science Unit / Elective Unit for (Chemical Engineering/Electrical and Electronics/Mechanical)	
70	CHE10001	Chemistry 1	VCE 3 and 4 Chemistry or equivalent	Science Unit / Elective Unit for (Electrical and Electronics/Mechanical/Robotics and Mechatronics)	
71	CHE10002	Chemistry 2	CHE10001	Science Unit / Elective Unit for (Mechanical)	
72	BIO10001	Concepts of Biology	Nil	Science Unit / Elective Unit for (Electrical and Electronics/Mechanical/Robotics and Mechatronics)	
73	BCH20001	Biochemistry of Genes and Proteins	CHE10001 and BCH20002	Science Unit / Elective Unit for (Electrical and Electronics/Mechanical/Robotics and Mechatronics)	
74	NPS20005	Communication for Scientists	100 credit points of study	Science Unit / Elective Unit for (Mechanical)	
75	HES2205	Aquatic Biotechnology	150 credit points of study	Science Unit / Elective Unit for (Mechanical)	
76	COS10003	COMPUTER AND LOGIC ESSENTIALS	NIL	Elective Unit for (Electrical and Electronics)	ICT/CS Units
77	COS10004	COMPUTER SYSTEMS	COS10003 (HIT1312)	Elective Unit for (Electrical and Electronics)	ICT/CS Units
78	COS10081	INTRODUCTION TO DATA SCIENCE	NIL	Elective Unit for (Electrical and Electronics / Robotics and Mechatronics)	ICT/CS Units
79	COS20001	USER CENTRED DESIGN	Nil	Elective Unit for (Electrical and Electronics / Robotics and Mechatronics)	ICT/CS Units
80	COS20007	OBJECT ORIENTED PROGRAMMING	COS10001 / COS10009 / INF10016 / SWE20004	Elective Unit for (Electrical and Electronics / Robotics and Mechatronics)	ICT/CS Units
81	COS20085	BIG DATA ARCHITECTURE AND APPLICATION	COS10081 & (COS20007 / COS30016)	Elective Unit for (Electrical and Electronics / Robotics and Mechatronics)	ICT/CS Units
82	COS30008	DATA STRUCTURE AND PATTERNS	COS20007 / COS30016 (HIT3037) / SWE20004 / COS20011	Elective Unit for (Electrical and Electronics / Robotics and Mechatronics)	ICT/CS Units
83	COS30017	SOFTWARE DEVELOPMENT FOR MOBILE DEVICES	COS20007 / COS20011 / COS30014 / COS30016 / SWE20004	Elective Unit for (Electrical and Electronics / Robotics and Mechatronics)	ICT/CS Units
84	COS30019	INTRODUCTION TO ARTIFICIAL INTELLIGENCE	COS20007 / COS30008	Elective Unit for (Electrical and Electronics / Robotics and Mechatronics)	ICT/CS Units
85	ICT30005	PROFESSIONAL ISSUES IN INFORMATION TECHNOLOGY	COMPLETED 16 UNITS (200 CREDIT POINTS)	Elective Unit for (Robotics and Mechatronics)	ICT/CS Units
86	INF10002	DATABASE ANALYSIS AND DESIGN	NIL	Elective Unit for (Electrical and Electronics)	ICT/CS Units
87	SWE20001	DEVELOPMENT PROJECT 1 – TOOLS AND PRACTICES	SWE20004 / COS10009	Elective Unit for (Robotics and Mechatronics)	ICT/CS Units
88	SWE30010	DEVELOPMENT PROJECT 2 -DESIGNING, PLANNING AND MANAGEMENT	(SWE20001 / MME30001) & (COS20007 / SWE20004 /COS20007)	Elective Unit for (Robotics and Mechatronics)	ICT/CS Units
89	TNE10006	NETWORKS AND SWITCHING	NIL	Elective Unit for (Electrical and Electronics / Robotics and Mechatronics)	ICT/CS Units
90	TNE20002	NETWORK ROUTING PRINCIPLES	TNE10006	Elective Unit for (Electrical and Electronics)	ICT/CS Units
91	TNE30018	ENTERPRISE NETWORK SERVER ADMINISTRATION	TNE10005	Elective Unit for (Electrical and Electronics)	ICT/CS Units

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