ELECTRICAL ENGINEERING - Double Honours

Single Honours Degree Requirements	MCs	Remarks	Classification
(A) University Level Requirements			
General education modules:			
GER1000 Quantitative Reasoning	4	Only 1 set needs to be completed for both BEng and BBA degrees. May be replaced by selected USP, RVRC or UTCP modules.	CA
GEQ1000 Asking Questions	4		CA
GET	4		CA
GEH	4		CA
GES	4		CA
Sub-total for University Level Requirements	20		
(B) Engineering Programme Requirements			
Faculty requirements:			
EG2401A Engineering Professionalism	2		C1
ES2351 Critical Thinking and Writing	4	Can be replaced by UWC2101% (for USP students), ES1601 (for RVRC students), or UTW2001% (for UTCP students).	CA
Foundation requirements:			
EE1111A Electrical Engineering Principles & Practice I	4		C1
EE2111A Electrical Engineering Principles & Practice II	4		C1
MA1511 Engineering Calculus	2		C1
MA1512 Differential Equations for Engineering	2		C1
MA1508E Linear Algebra for Engineers	4		C1
CS1010E Programming Methodology	4		C1
EE2211 Introduction to Machine Learning	4		C1
EG1311 Design and Make	4		C1
IE2141 Systems Thinking and Dynamics	4		C1
MLE1010 Materials Engineering Principles & Practices	4		C1
EE core modules:			
EE2012A Analytical Methods in Electrical and Computer Engineering	-	Counted as essential Common Module	CA
EE2023 Signals and Systems	4		C1
EE2026 Digital Design	4		C1
EE2027 Electronic Circuits	4		C1
EE2028 Microcontroller Programming and Interfacing	4		C1
EE2028A C Programming	2		C1
EE2029 Introduction to Electrical Energy Systems	3		C1
EE2033 Integrated Systems Lab	4		C1
PC2020 Electromagnetics for Electrical Engineers	4		C1
EE project and internship modules:			
EE4002D Design Capstone or EE4002R Research Capstone	-	Replaced with XFE4401 Integrated Honours Project. Students who do not complete XFE4401 must fulfil this requirement.	C1
EG3611A Industrial Attachment	-	Exempted for DDP students	-
EE pathway requirements and electives:			
EE pathway requirement 1	4		C1
EE pathway requirement 2	4		C1
EE outer core elective	4		C1
EE technical electives	-	**Students who do not complete XFE4401 must fulfil at least 5 MCs for this requirement, which can also be satisfied by EG3612 Vacation Internship Programme**	**C1**
Sub-total for Engineering Programme Requirements	**83**		
(C) FASS Faculty Requirements			
Level 1000 exposure module - Asian Studies	4	Choose one from the following: CH1101E, CL1101E, JS1101E, MS1102E, SE1101E, SN1101E	C2
Level 1000 exposure module - Social Sciences	4	EC1101E Introduction to Economic Analysis	C2
Level 1000 exposure module - Humanities	4	Choose one from the following: EL1101E, EN1101E, TS1101E, HY1101E, GET1029	C2
FAS1102 Public Writing and Communication or FAS1103 Effective Workplace Communication + CFG1002 Career Catalyst	4		C2
Sub-total for FASS Faculty Requirements	16		
(D) Economics Major Requirements			
Essential modules:			
EC2101 Microeconomic Analysis I	4		C2
EC2102 Macroeconomic Analysis I	4		C2
EC2104 Quantitative Methods for Economic Analysis	4		C2
EC3101 Microeconomic Analysis II	4		C2
EC3102 Macroeconomic Analysis II	4		C2
EC3303 Econometrics I	4		C2
EC3304 Econometrics II	4		C2
Elective modules:			
EC elective 1 (Level 3000)	4		C2
EC elective 2 (Level 4000)	5		C2
EC elective 3 (Level 4000)	5		C2
EC elective 4 (Level 4000)	5		C2
EC elective 5 (Level 4000)	5		C2
EC elective 6 (Level 4000)	5		C2
Honours requirement:			
EC4401 Honours Thesis or 3 Level 4000 EC electives	-	Replaced with XFE4401 Integrated Honours Project. Students who do not complete XFE4401 must fulfil this requirement.	C2
Sub-total for Economics Major Requirements	57		
(E) Common Modules			
BEng module	4	Select from list of Common Modules	CA
EC module	4	Select from list of Common Modules (Students who do not complete XFE4401 must select a Level 4000 EC module which carries 5 MCs.)	CA
Essential common module	3	EE2012A Analytical Methods in Electrical and Computer Engineering	CA
XFE4401 Integrated Honours Project	16	Replaces dissertation / honours thesis modules in both degree programmes	CA
Sub-total for Common Modules	28		
TOTAL (minimum)	**204**		