

AY2025-2026 CURRICULUM FOR COMPUTER ENGINEERING

Accelerated Bachelor Programme

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Year of Study	Core	MPE	ICC			BDE	Total AU
			Common - Core	Professional Series	Care, Serve, Learn		
Y1	26	0	6	3	0	0	35
Y2	27	0	8	0	3	9	47
Y3	8	6	0	12	0	6	32
Y4	4	12	0	1	0	5	22
Total	65	18	14	16	3	20	136

Recommended Course Schedule

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1003	Introduction to Computational Thinking & Programming	P-Series	3	Nil
SC1004	Linear Algebra for Computing	Core	4	SC1003 (co-req)
SC1005	Digital Logic	Core	3	Nil
SC1013	Physics For Computing	Core	2	Nil
EG1001	Engineers in Society	Core	2	Nil
CC0003	Ethics & Civics in a Multicultural World	C-Core	2	Nil
CC0015	Health & Wellbeing	C-Core	2	Nil
HW0001	Introduction to Academic Communication	-	-	For student failed QET
HW0002	Calculus	-	-	For student not done Calculus
TOTAL			18	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-req)
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1008	C and C++ Programming	Core	3	SC1003
SC2000	Probability & Statistics for Computing	Core	3	Nil
MH1812	Discrete Mathematics	Core	3	Nil
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
			17	
Year 1 Total AU			35	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
SC2006	Software Engineering	Core	3	SC2002 (co-req)
SC2008	Computer Network	Core	3	SC2000 & SC1004
SC2107	Microprocessor System Design and Development	Core	3	SC1006
CC0007	Science & Technology for Humanity	C-Core	3	Nil
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
	Broadening and Deepening Elective	BDE	3	
TOTAL			23	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2103	Digital Systems Design	Core	3	SC1005
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2104	Sensors, Interfacing & Digital Control	Core	3	SC1006
SC3102	Signals, Systems and Transforms	Core	3	SC1004
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
CSL	CSL (service learning course) - Part 1	CSL	3	(Continue in Y3S2)
TOTAL			24	
Year 2 Total AU			47	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC3920	Professional Internship (Graded)	P-Series	10	Year 3 Standing
CSL	CSL (service learning course) - Part 2	CSL	-	(Continue from Y2S2)
TOTAL			10	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2079	Multidisciplinary Design Project	Core	4	Year 3 Standing
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-1	3	Refer to MPE listing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-2	3	Refer to MPE listing
HW0288	Engineering Communication	P-Series	2	CC0001 & Year 3 standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
TOTAL			22	
	Year 3 Total AU		32	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC4079	Final Year Project (Part 2)	Core	4	Year 4 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-3	3	Refer to MPE listing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-4	3	Refer to MPE listing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-5	3	Refer to MPE listing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-6	3	Refer to MPE listing
ML0015	Profession Preparation	P-Series	1	Nil
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
TOTAL			22	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
TOTAL			0	
	Year 4 Total AU		22	
Grand Total (Year 1 to 4)			136	

Important Note:

- Students are required to complete 6 **Major Prescribed Electives (MPE)** courses, of which **at least 4 must be at the SC4xxx level**.
- In order to graduate with **Highest Distinction**, students must achieve **minimum CGPA of 4.5** and at least a **'B+' grade for the Final Year Project**.

MPE Structure of Computer Engineering (U24 and after)			
Course Code	Type	AU	Remarks
SC3xxx/SC4xxx	MPE-1	3	Any MPE
SC3xxx/SC4xxx	MPE-2	3	Any MPE
SC4xxx	MPE-3	3	Choose within SC4xxx
SC4xxx	MPE-4	3	Choose within SC4xxx
SC4xxx	MPE-5	3	Choose within SC4xxx
SC4xxx	MPE-6	3	Choose within SC4xxx
	Total	18	
Please refer to the CE MPE Courses and Elective Focus Areas on CCDS website.			