

AY2025-2026 CURRICULUM FOR COMPUTER ENGINEERING

**With a Second Major in Business
Mainstream Track**

PI option : 20-WEEK Professional Internship

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Year of Study	Major		ICC			2M - BUS / BDE	Total AU
	Core	MPE	Common - Core	Professional Series	Care, Serve, Learn		
Y1	20	0	6	3	0	6	35
Y2	27	0	8	0	3	6	44
Y3	7	6	0	12	0	6	31
Y4	11	12	0	1	0	12	36
Total	65	18	14	16	3	30	146

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
SC1013	Physics For Computing	Core	2	Nil
SC1004	Linear Algebra for Computing	Core	4	SC1003 (co-req)
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
AB1201	Financial Management	2M-BUS (BDE)	3	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
SC1005	Digital Logic	Core	3	Nil
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1008	C and C++ Programming	Core	3	SC1003
MH1812	Discrete Mathematics	Core	3	Nil
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
AB1501	Marketing	2M-BUS (BDE)	3	Nil
TOTAL			17	
Year 1 Total AU			35	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-req)
SC2000	Probability & Statistics for Computing	Core	3	Nil
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
SC2103	Digital Systems Design	Core	3	SC1005
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
CC0007	Science & Technology for Humanity	C-Core	3	Nil
AD1102	Financial Accounting	2M-BUS (BDE)	3	Nil
TOTAL			23	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2006	Software Engineering	Core	3	SC2002 (co-req)
SC2008	Computer Network	Core	3	SC2000 & SC1004
SC2104	Sensors, Interfacing & Digital Control	Core	3	SC1006
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
AB1601	Organisational Behaviour and Design	2M-BUS (BDE)	3	AD1102
CSL	CSL (service learning course) - Part 1	CSL	3	(Continue in Y3S1)
TOTAL			21	
Year 2 Total AU			44	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2107	Microprocessor System Design and Development	Core	3	SC1006
SC2079	Multidisciplinary Design Project	Core	4	Year 3 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
AD2102	Management Accounting	2M-BUS (BDE)	3	Nil
AB1301	Business Law	2M-BUS (BDE)	3	AB1201
CSL	CSL (service learning course) - Part 2	CSL	-	(Continue from Y2S2)
TOTAL			21	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC3920	Professional Internship (Graded)	P-Series	10	Year 3 Standing
TOTAL			10	
Year 3 Total AU			31	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
SC3102	Signals, Systems and Transforms	Core	3	SC1004
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Refer to MPE listing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Refer to MPE listing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Refer to MPE listing
BF2219	Investments	2M-BUS (BDE)	3	AB1601
BE2602	Management Principles, Skills & Competencies	2M-BUS (BDE)	3	AB1501
ML0015	Profession Preparation	P-Series	1	Nil
TOTAL			23	

YEAR 4 SEMESTER 2				
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	Year 3 Standing
BM2509	Consumer Insights	2M-BUS (BDE)	3	Nil
BE1402	Business Operations & Process	2M-BUS (BDE)	3	Nil
TOTAL			13	
Year 4 Total AU			36	
Grand Total (Year 1 to 4)			146	

Important Note:

1. Students are required to complete 6 **Major Prescribed Electives (MPE)** courses, of which **at least 4 must be at the SC4xxx level**.
2. 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.			

AY2025-2026 CURRICULUM FOR COMPUTER ENGINEERING

**With a Second Major in Business
Mainstream Track**

PA option : 10-WEEK Professional Attachment

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Year of Study	Major		ICC			2M - BUS / BDE	Total AU
	Core	MPE	Common - Core	Professional Series	Care, Serve, Learn		
Y1	20	0	6	3	0	6	35
Y2	24	0	8	0	3	6	41
Y3	13	12	0	7	0	9	41
Y4	8	6	0	1	0	14	29
Total	65	18	14	11	3	35	146

Recommended Course Schedule

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1004	Linear Algebra for Computing	Core	4	SC1003 (co-req)
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
SC1003	Introduction to Computational Thinking & Programming	P-Series	3	Nil
AB1201	Financial Management	2M-BUS (BDE)	3	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
SC1005	Digital Logic	Core	3	Nil
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1008	C and C++ Programming	Core	3	SC1003
MH1812	Discrete Mathematics	Core	3	Nil
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
AB1501	Marketing	2M-BUS (BDE)	3	Nil
TOTAL			17	
Year 1 Total AU			35	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-req)
SC2000	Probability & Statistics for Computing	Core	3	Nil
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
SC2103	Digital Systems Design	Core	3	SC1005
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
CC0007	Science & Technology for Humanity	C-Core	3	Nil
AD1102	Financial Accounting	2M-BUS (BDE)	3	Nil
TOTAL			23	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2006	Software Engineering	Core	3	SC2002 (co-req)
SC2008	Computer Network	Core	3	SC2000 & SC1004
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
CSL	CSL (service learning course) - Part 1	CSL	3	(Continue in Y3S1)
AB1601	Organisational Behaviour and Design	2M-BUS (BDE)	3	AD1102
TOTAL			18	
Year 2 Total AU			41	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2107	Microprocessor System Design and Development	Core	3	SC1006
SC2079	Multidisciplinary Design Project	Core	4	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-1	3	Refer to MPE listing
HW0288	Engineering Communication	P-Series	2	CC0001 & Year 3 standing
AD2102	Management Accounting	2M-BUS (BDE)	3	Nil
AB1301	Business Law	2M-BUS (BDE)	3	AB1201
CSL	CSL (service learning course) - Part 2	CSL	-	(Continue from Y2S2)
TOTAL			18	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2104	Sensors, Interfacing & Digital Control	Core	3	SC1006
SC3102	Signals, Systems and Transforms	Core	3	SC1004
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-2	3	Refer to MPE listing
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
BF2219	Investments	2M-BUS (BDE)	3	AB1201
TOTAL			18	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC3910	Professional Attachment (Graded)	P-Series	5	Year 3 Standing
TOTAL			5	
Year 3 Total AU			41	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-5	3	Refer to MPE listing
ML0015	Profession Preparation	P-Series	1	Nil
BE2602	Management Principles, Skills & Competencies	2M-BUS (BDE)	3	AB1501
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
TOTAL			16	

YEAR 4 SEMESTER 2				
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-6	3	Refer to MPE listing
BM2509	Consumer Insights	2M-BUS (BDE)	3	Nil
BE1402	Business Operations & Process	2M-BUS (BDE)	3	Nil
TOTAL			13	
Year 4 Total AU			29	
Grand Total (Year 1 to 4)			146	

Important Note:

1. Students are required to complete 6 **Major Prescribed Electives (MPE) courses**, of which **at least 4 must be at the SC4xxx level**.
2. 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.](#)

Business Course Listing				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
AB1201	Financial Management	2M-BUS (BDE)	3	Nil
AB1501	Marketing	2M-BUS (BDE)	3	Nil
AD1102	Financial Accounting	2M-BUS (BDE)	3	Nil
AB1601	Organisational Behaviour and Design	2M-BUS (BDE)	3	Nil
AD2102	Management Accounting	2M-BUS (BDE)	3	AD1102
AB1301	Business Law	2M-BUS (BDE)	3	Nil
BF2219	Investments	2M-BUS (BDE)	3	AB1201
BE2602	Management Principles, Skills & Competencies	2M-BUS (BDE)	3	AB1601
BM2509	Consumer Insights	2M-BUS (BDE)	3	AB1501
BE1402	Business Operations & Process	2M-BUS (BDE)	3	Nil
TOTAL			30	Nil