

AY2025-2026
CURRICULUM FOR COMPUTER SCIENCE AND ECONOMICS

DOUBLE DEGREE PROGRAMME

PI option : 20-WEEK Professional Internship

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Year of Study	Core		MPE		ICC			BDE	Total AU
	CSC	ECON	CSC	ECON	C-Core	Professional Series	Care, Serve, Learn		
Y1	16	9	0	0	8	3	0	0	36
Y2	18	6	0	3	6	0	3	0	36
Y3	13	9	12	6	0	2	0	0	42
Y4	0	0	9	6	0	10	0	0	25
Y5	0	0	14/15	18	0	1	0	2	35/36
Total	47	24	35/36	33	14	16	3	2	174/175

Recommended Course Schedule

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1005	Digital Logic	Core	3	Nil
HE1001	Microeconomics I	Core-Econ	3	Nil
HE1002	Macroeconomics I	Core-Econ	3	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
TOTAL			16	

YEAR 1 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1004	Linear Algebra for Computing	Core-CS	4	SC1003 (co-requisite)
SC1007	Data Structures & Algorithms	Core-CS	3	SC1003
SC1008	C and C++ Programming	Core-CS	3	SC1003
MH1812	Discrete Mathematics	Core-CS	3	Nil
HE2001	Microeconomics II	Core-Econ	3	HE1001
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
			20	
			Year 1 Total AU	36

YEAR 2 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1006	Computer Organisation & Architecture	Core-CS	3	SC1005 (co-requisite)
SC2000	Probability & Statistics for Computing	Core-CS	3	Nil
SC2002	Object Oriented Design & Programming	Core-CS	3	SC1003 OR SC1007
HE3001	Microeconomics III	Core-Econ	3	HE2001
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
CSL	CSL (service learning course) - Part 1	CSL	3	(Continue in Semester 2)
TOTAL			18	

YEAR 2 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2001	Algorithm Design & Analysis	Core-CS	3	SC1007 & MH1812
SC2005	Operating Systems	Core-CS	3	SC1006 & SC1007
SC2006	Software Engineering	Core-CS	3	SC2002 (co-requisite)
HE2002	Macroeconomics II	Core-Econ	3	HE1002
MH1820	Introduction to Statistical Theory and Methods	MPE-C	3	Nil
CC0007	Science & Technology for Humanity	C-Core	3	Nil
CSL	CSL (service learning course) - Part 2	CSL	-	(Continue from Semester 1)
			18	
			Year 2 Total AU	36

YEAR 3 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2203	Automata, Computability and Complexity	Core-CS	3	SC2001 (co-requisite)
SC2207	Introduction to Databases	Core-CS	3	SC2001 (co-requisite)
SC2008	Computer Network	Core-CS	3	SC2000 & SC1004
HE2003	Econometrics I	Core-Econ	3	MH1820
HE3002	Macroeconomics III	Core-Econ	3	HE2002

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
TOTAL			21	

YEAR 3 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC3099	Capstone Project	Core-CS	4	Year 3 Standing
HE3003	Econometrics II	Core-Econ	3	HE2003
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-3	3	Refer to MPE listing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-4	3	Refer to MPE listing
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
HW0288	Engineering Communication	P-Series	2	CC0001 & Year 3 standing
TOTAL			21	
Year 3 Total AU			42	

YEAR 4 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-5	3	Refer to MPE listing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-6	3	Refer to MPE listing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-7	3	Refer to MPE listing
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
TOTAL			15	

YEAR 4 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC3920	Professional Internship (Graded)	P-Series	10	Year 3 Standing
			10	
Year 4 Total			25	

YEAR 5 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC4079	Final Year Project (Part 1)	MPE-C	4	Year 4 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-8	3	Refer to MPE listing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-9	3	Refer to MPE listing
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
ML0015	Profession Preparation	P-Series	1	Nil
TOTAL			17	

YEAR 5 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC4079	Final Year Project (Part 2)	MPE-C	4	Year 4 Standing
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MPE-Econ 4	4	-
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MPE-Econ 4	4	-
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MPE-Econ 4	4	-
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
			18	
Year 5 Total			35	
Grand Total (Year 1 to 5)			174	

Note:

- Students are required to complete **9 Major Prescribed Electives (MPE) courses** (SC3xxx or SC4xxx), of which **at least 4 must be at the SC4xxx level**.
- Students may choose to complete a **Final Year Project (FYP)** or take **3 additional MPEs** in its place.
- In order to graduate with **Highest Distinction**, students **must complete a Final Year Project**.

MPE Structure of Computer Science (U24 and after)			
Course Code	Type	AU	Remarks
SC3xxx/SC4xxx	MPE-1	3	Any MPE
SC3xxx/SC4xxx	MPE-2	3	Any MPE
SC3xxx/SC4xxx	MPE-3	3	Any MPE
SC3xxx/SC4xxx	MPE-4	3	Any MPE
SC3xxx/SC4xxx	MPE-5	3	Any MPE
SC4xxx	MPE-6	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-7	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-8	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-9	3	MPE (Choose within SC4xxx)
	Total	27	
Please refer the CSC MPE Courses and Specialisation on CCDS website.			

AY2025-2026 AND LATER COHORTS CURRICULUM FOR COMPUTER SCIENCE AND ECONOMICS

DOUBLE DEGREE PROGRAMME

PA option : 10-WEEK Professional Attachment

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Year of Study	Core		MPE		ICC			BDE	Total AU
	CSC	ECON	CSC	ECON	C-Core	Professional Series	Care, Serve, Learn		
Y1	16	9	0	0	8	3	0	0	36
Y2	18	6	0	3	6	0	3	0	36
Y3	13	9	12	0	0	7	0	0	41
Y4	0	0	15	12	0	1	0	3	31
Y5	0	0	8/9	18	0	0	0	4	30/31
Total	47	24	35/36	33	14	11	3	7	174/175

Recommended Course Schedule

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1005	Digital Logic	Core-CS	3	Nil
HE1001	Microeconomics I	Core-Econ	3	Nil
HE1002	Macroeconomics I	Core-Econ	3	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
HW0001	Introduction to Academic Communication	-	-	For student failed QET
HW0002	Calculus	-	-	For student not done Calculus
TOTAL			16	

YEAR 1 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1004	Linear Algebra for Computing	Core-CS	4	SC1003 (co-requisite)
SC1007	Data Structures & Algorithms	Core-CS	3	SC1003
SC1008	C and C++ Programming	Core-CS	3	SC1003
MH1812	Discrete Mathematics	Core-CS	3	Nil
HE2001	Microeconomics II	Core-Econ	3	HE1001
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
			20	
			Year 1 Total AU	36

YEAR 2 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC1006	Computer Organisation & Architecture	Core-CS	3	SC1005 (co-requisite)
SC2000	Probability & Statistics for Computing	Core-CS	3	Nil
SC2002	Object Oriented Design & Programming	Core-CS	3	SC1003 OR SC1007
HE3001	Microeconomics III	Core-Econ	3	HE2001
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
CSL	CSL (service learning course) - Part 1	CSL	3	(Continue in Semester 2)
TOTAL			18	

YEAR 2 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2001	Algorithm Design & Analysis	Core-CS	3	SC1007 & MH1812
SC2005	Operating Systems	Core-CS	3	SC1006 & SC1007
SC2006	Software Engineering	Core-CS	3	SC2002 (co-requisite)
HE2002	Macroeconomics II	Core-Econ	3	HE1002
MH1820	Introduction to Statistical Theory and Methods	MPE-C	3	Nil
CC0007	Science & Technology for Humanity	C-Core	3	Nil
CSL	CSL (service learning course) - Part 2	CSL	-	(Continue from Semester 1)
			18	
			Year 2 Total AU	36

YEAR 3 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2207	Introduction to Databases	Core-CS	3	SC2001 (co-requisite)
SC2008	Computer Network	Core-CS	3	SC2000 & SC1004
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
HE2003	Econometrics I	Core-Econ	3	MH1820
HE3002	Macroeconomics III	Core-Econ	3	HE2002
TOTAL			18	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC2203	Automata, Computability and Complexity	Core-CS	3	SC2001 (co-requisite)
SC3099	Capstone Project	Core-CS	4	Year 3 Standing
HE3003	Econometrics II	Core-Econ	3	HE2003
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-1	3	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-2	3	Year 3 Standing
HW0288	Engineering Communication	P-Series	2	CC0001 & Year 3 standing
			18	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC3026	Professional Attachment	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
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-3	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-4	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-5	3	Year 3 Standing
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
ML0015	Profession Preparation	P-Series	1	Nil
TOTAL			16	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-6	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-7	3	Year 3 Standing
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			15	
			Year 4 Total	31

YEAR 5 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC4079	Final Year Project (Part 1)	MPE-C	4	Year 4 Standing
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MPE-Econ 3	3	-
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MPE-Econ 4	4	-
TOTAL			14	

YEAR 5 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite/Remarks
SC4079	Final Year Project (Part 2)	MPE-C	4	Year 4 Standing
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MPE-Econ 4	4	-
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MPE-Econ 4	4	-
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
			16	
			Year 5 Total	30
Grand Total (Year 1 to 5)			174	

Note:

- Students are required to complete **9 Major Prescribed Electives (MPE) courses** (SC3xxx or SC4xxx), of which **at least 4 must be at the SC4xxx level**.
- Students may choose to complete a **Final Year Project (FYP)** or take **3 additional MPES** in its place.
- In order to graduate with **Highest Distinction**, students **must complete a Final Year Project**.

MPE Structure of Computer Science (U24 and after)			
Course Code	Type	AU	Remarks
SC3xxx/SC4xxx	MPE-1	3	Any MPE
SC3xxx/SC4xxx	MPE-2	3	Any MPE
SC3xxx/SC4xxx	MPE-3	3	Any MPE
SC3xxx/SC4xxx	MPE-4	3	Any MPE
SC3xxx/SC4xxx	MPE-5	3	Any MPE
SC4xxx	MPE-6	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-7	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-8	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-9	3	MPE (Choose within SC4xxx)
	Total	27	

[Please refer the CSC MPE Courses and Specialisation on CCDS website.](#)

MPE Structure of Economics (U21 and after)			
Course Code	Type	AU	Remarks
MH1820	MPE-C	3	Compulsory MPE
Level 3xxx (6 courses)	MPE-Econ 3	18	Choose with in HE3xxx
Level 4xxx (3 courses)	MPE-Econ 4	12	Choose with in HE4xxx
	Total	33	

ECONOMICS Course Listing				
CourseCode	Course Title	Type	AU	Pre-requisite/Remarks
HE1001	Microeconomics I	Core-Econ	3	Nil
HE1002	Macroeconomics I	Core-Econ	3	Nil
HE2001	Microeconomics II	Core-Econ	3	HE1001
HE2002	Macroeconomics II	Core-Econ	3	HE1002
HE2003	Econometrics I	Core-Econ	3	MH1820
HE3001	Microeconomics III	Core-Econ	3	HE2001
HE3002	Macroeconomics III	Core-Econ	3	HE2002
HE3003	Econometrics II	Core-Econ	3	HE2003
MH1820	Introduction to Statistical Theory and Methods	MPE-C	3	Nil
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MEP-Econ 3	3	-
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MEP-Econ 4	4	-