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		
1	16	9	0	0	6	3	0	0	34
2	18	6	0	3	8	0	3	0	38
3	12	9	12	6	0	2	0	0	42
4	0	0	9	6	0	10	0	0	25
5	9	0	6	18	0	1	0	3	36
Total	55	24	27	33	14	16	3	3	175

Recommended Course Schedule

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	Professional Series	3	Nil
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
			16	

YEAR 1 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC1004	Linear Algebra for Computing	Core	4	SC1003 (co-requisite)
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1008	C and C++ Programming	Core	3	SC1003
MH1812	Discrete Mathematics	Core	3	Nil
HE2001	Microeconomics II	Core-Econ	3	HE1001
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
			18	

Year 1 Total AU   **34**

YEAR 2 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-requisite)
SC2000	Probability & Statistics for Computing	Core	3	Nil
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
HE3001	Microeconomics III	Core-Econ	3	HE2001
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
CSL	CSL (service learning course)- Part 1	CSL	-	(Continue in Semester 2)
			17	

YEAR 2 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2006	Software Engineering	Core	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	3	(Continue from Semester 1)
			21	

Year 2 Total AU   **38**

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2203	Automata. Computability and Complexity	Core	3	SC2001 (co-requisite)
SC2207	Introduction to Databases	Core	3	SC2001 (co-requisite)
SC2008	Computer Network	Core	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
			21	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC2079	Multidisciplinary Design Project	Core	4	Year 3 Standing
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
HE3003	Econometrics II	Core-Econ	3	HE2003
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MEP-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MEP-Econ 3	3	-
HW0288	Engineering Communication	Professional Series	2	CC0001 & Year 3 standing
			21	

Year 3 Total AU			42	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
HE3xxx	Econs Prescribe Elective (Choose with HE3xxx)	MEP-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with HE3xxx)	MEP-Econ 3	3	-
			15	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC3920	Professional Internship (Graded)	Professional Series	10	Year 3 Standing
			10	

Year 4 Total AU			25	

YEAR 5 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MEP-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MEP-Econ 3	3	-
ML0015	Professsion Preparation	Professional Series	1	Nil
			17	

YEAR 5 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 2)	Core	4	Year 4 Standing
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MEP-Econ 4	4	-
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MEP-Econ 4	4	-
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MEP-Econ 4	4	-
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			19	

Year 5 Total AU			36	

AY2025-2026 AND LATER COHORTS
CURRICULUM FOR COMPUTER SCIENCE AND ECONOMICS
DOUBLE DEGREE PROGRAMME

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		
1	16	9	0	0	6	3	0	0	34
2	18	6	0	3	8	0	3	0	38
3	12	9	12	0	0	7	0	0	41
4	0	0	15	12	0	1	0	3	31
5	9	0	0	18	0	0	0	5	31
Total	55	24	27	33	14	11	3	8	175

Recommended Course Schedule

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	Professional Series	3	Nil
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
HW0001	Introduction to Academic Communication	-	-	For student failed QET
HW0002	Calculus	-	-	For student not done Calculus
			16	

YEAR 1 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC1004	Linear Algebra for Computing	Core	4	SC1003 (co-requisite)
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1008	C and C++ Programming	Core	3	SC1003
MH1812	Discrete Mathematics	Core	3	Nil
HE2001	Microeconomics II	Core-Econ	3	HE1001
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
			18	
	Year 1 Total AU		34	

YEAR 2 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-requisite)
SC2000	Probability & Statistics for Computing	Core	3	Nil
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
HE3001	Microeconomics III	Core-Econ	3	HE2001
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
CSL	CSL(service learning course)- Part 1	CSL	-	(Continue in Semester 2)
			17	

YEAR 2 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2006	Software Engineering	Core	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	3	(Continue from Semester 1)
			18	
	Year 2 Total AU		35	

YEAR 3 SEMESTER 1				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC2207	Introduction to Databases	Core	3	SC2001 (co-requisite)
SC2008	Computer Network	Core	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
			18	

YEAR 3 SEMESTER 2				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC2203	Automata. Computability and Complexity	Core	3	SC2001 (co-requisite)
SC2079	Multidisciplinary Design Project	Core	4	Year 3 Standing
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
HE3003	Econometrics II	Core-Econ	3	HE2003
HW0288	Engineering Communication	Professional Series	2	CC0001 & Year 3 standing
			18	

YEAR 3 SPECIAL SEMESTER				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC3026	Professional Attachment	Professional Series	5	Year 3 Standing
			5	
	Year 3 Total AU		**41**	

YEAR 4 SEMESTER 1				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MEP-Econ 3	3	-
HE3xxx	Econs Prescribe Elective (Choose with in HE3xxx)	MEP-Econ 3	3	-
ML0015	Professsion Preparation	Professional Series	1	Nil
			16	

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

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

YEAR 5 SEMESTER 2				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC4079	Final Year Project (Part 2)	Core	4	Year 4 Standing
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MEP-Econ 4	4	-
HE4xxx	Econs Prescribe Elective (Choose with in HE4xxx)	MEP-Econ 4	4	-
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
			17	
	Year 5 Total AU		**31**	

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 Specialization 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)	MEP-Econ 3	18	Choose with in HE3xxx
Level 4xxx (3 courses)	MEP-Econ 4	12	Choose with in HE4xxx
	Total	33	

ECONOMICS Course Lising				
Course Code	Course Title	Type	AU	Pre-requisite
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	-