

AY2025-26 CURRICULUM FOR BACHELOR OF ENGINEERING (MECHANICAL ENGINEERING - MAINSTREAM)
CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)
AY2025 Intake Onwards

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Major Requirements			Interdisciplinary Collaborative Core			Broadening & Deepening Electives (BDE)	Total AU
	Core (C)	CNYS-Core (CNYS-C)	Major Prescribed Electives (MPE)	Common Core (CC)	Professional Series (PS)	Care, Serve, Learn (CSL)		
1	11	27	0	2	0	0	0	40
2	18	6	0	8	0	3	4	39
3	25	0	0	0	9	0	2	36
4	15	0	6	0	0	0	0	21
Total	69	33	6	10	9	3	6	136

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY1001	Cell	CNYS-C	3	
CY1101	Molecule	CNYS-C	4	
CY1308	Physics	CNYS-C	3	
CY1500	Introduction to Research	CNYS-C	2	
CY1601	Mathematics I	CNYS-C	4	
EG1001	Engineers in Society	C	2	
CC0015	Health & Wellbeing	CC	2	
			20	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY1007	Climate Change	CNYS-C	3	
CY1602	Mathematics II	CNYS-C	4	
MA1001	Dynamics	C	3	
MA1008	Introduction to Computational Thinking	C	3	
MA2001	Mechanics of Materials	C	3	
			16	

YEAR 1 SPECIAL TERM				
Course Code	Course Title	Type	AU	Remarks
CY2003	Research Attachment 3 (Making and Tinkering)	CNYS-C	4	
	Overseas Learning Trip			
			4	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY0001	Writing Across The Disciplines	CNYS-C	3	
MA5915	Undergraduate Research	BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2
MA2002	Theory of Mechanism	C	3	
MA2003	Intro to Thermo-fluids	C	3	
MA2024	Engineering Materials & Manufacturing Processes	C	3	
MA2006	Engineering Mathematics	C	3	MH1810 & MH1811
SP0061	Science & Technology for Humanity	CC	3	
	Tech-For-Good (T4G)	CSL	3	
			21	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY0002	Ethics	CNYS-C	3	
MA5915	Undergraduate Research	BDE	4	2-semester long, course registered only in Sem 2
MA2005	Engineering Graphics	C	3	
MA2071	Laboratory Experiments	C	1	
MA2079	Engineering Innovation and Design	C	2	Semester 2 with 1 week in Special Term
CC0006	Sustainability: Society, Economy & Environment	CC	3	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	AY27 cohort to read in Year 1 Semester 2
			18	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
MA2007	Thermodynamics	C	3	
MA2009	Introduction to Electrical & Electronic Devices	C	3	
MA3001	Machine Element Design	C	3	Having read MA2001, MA2002 and MA2003
MA3002	Solid Mechanics and Vibration	C	3	MA2001
MA3004	Mathematical Methods in Engineering	C	3	MH1810 & MH1811
MA3071	Engineering Experiments (ME)	C	1	
MLXXXX	Profession Preparation	PS	1	

			17	
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YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
MA3003	Heat Transfer	C	3	MA2007
MA3005	Control Theory	C	3	Having read MA2006
MA3006	Fluid Mechanics	C	3	
MA0218	Introduction to Data Science and Artificial Intelligence	PS	3	
XXXXXX	Broadening and Deepening Elective 1	BDE	2	
			14	

YEAR 3 SPECIAL TERM				
Course Code	Course Title	Type	AU	Remarks
MA3910	Professional Attachment	PS	5	
			5	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
MA4001	Engineering Design	C	4	Having read MA3001
MA4002	Fluid Dynamics	C	3	MA3006
MA48XX	Major-PE 1	MPE	3	
MA48XX	Major-PE 2	MPE	3	
			13	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
MA4211	CNYSP Overseas Final Year Project	C	8	Year 4 standing
			8	
Total AUs for Graduation:			136	