

CURRICULUM FOR BACHELOR OF ENGINEERING (AEROSPACE ENGINEERING)
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)	CNYSP-Core (CNYSP-C)	Major Prescribed Electives (MPE)	Common Core (CC)	Professional Series (PS)	Care, Serve, Learn (CSL)		
1	12	27	0	2	0	0	0	41
2	20	10	0	8	0	3	0	41
3	27	0	0	0	9	0	2	38
4	17	0	0	0	0	0	0	17
Total	76	37	0	10	9	3	2	137

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY1001	Cell	CNYSP-C	3	
CY1101	Molecule	CNYSP-C	4	
CY1308	Physics	CNYSP-C	3	
CY1500	Introduction to Research	CNYSP-C	2	
CY1601	Mathematics I	CNYSP-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	CNYSP-C	3	
CY1602	Mathematics II	CNYSP-C	4	
MA1001	Dynamics	C	3	
MA1008	Introduction to Computational Thinking	C	3	
MA1700	Aerospace Discovery Course	C	1	
MA2001	Mechanics of Materials	C	3	
			17	

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

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY0001	Writing Across The Disciplines	CNYSP-C	3	
MA2003	Intro to Thermo-fluids	C	3	
MA2006	Engineering Mathematics	C	3	
MA2072	Laboratory Experiments (AE)	C	1	
MA2701	Flight Performance	C	2	
SP0061	Science & Technology for Humanity	CC	3	
	Tech-For-Good (T4G)	CSL	3	
			18	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY0002	Ethics	CNYSP-C	3	
CY2001	Research Attachment 1	CNYSP-C	4	
MA2007	Thermodynamics	C	3	MA2003
MA2700	Aerospace Materials & Manufacturing Process	C	3	
MA2079	Engineering Innovation and Design	C	2	Semester 2 with 1 week in Special Term
MA3705	Aerospace Control Theory	C	3	Having Read MA2006
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
			23	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
MA3072	Engineering Experiments (AE)	C	1	
MA3700	Aircraft Structures I	C	3	MA2001
MA3701	Aerodynamics	C	3	MA2003
MA3702	Aircraft Propulsion	C	3	MA2007
MA3703	Flight Dynamics	C	2	MA2701 & MA3705
MA3704	Aircraft Electrical Devices	C	3	
MA4705	Aircraft Navigation and Flight Computers	C	3	MH1811
MLXXXX	Profession Preparation	PS	1	

			19	
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YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
MA2005	Engineering Graphics	C	3	
MA3003	Heat Transfer	C	3	MA2007
MA3006	Fluid Mechanics	C	3	MA2003
MA0218	Introduction to Data Science and Artificial Intelligence	PS	3	MA1008
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
MA4701	Aircraft Design	C	3	MA3701, MA3702 & MA3703
MA4702	Aircraft Structures II	C	3	MA2001 & MA3700
MA4704	Aeroelasticity	C	3	MA3700 & MA3701
			9	

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:			137	