

**AY2022-23 CURRICULUM FOR AEROSPACE ENGINEERING
WITH CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)**

Last Updated : 20-Apr-22

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Year of Study	Core	CNYS-Core	MPE	CC	FC	BDE	Total AU
1	12	27	0	5	0	0	44
2	20	10	0	8	0	3	41
3	27	0	0	0	8	0	35
4	17	0	0	0	0	0	17
Total	76	37	0	13	8	3	137

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite
CY1001	Cell	CNY-Core	3	CNYS- Courses
CY1101	Molecule	CNY-Core	4	
CY1308	Physics	CNY-Core	3	
CY1500	Introduction to Research	CNY-Core	2	
CY1601	Mathematics I	CNY-Core	4	
EG1001	Engineers In Society	C	2	
CC0005	Healthy Living & Mental Wellbeing in an Aging Society	CC	3	
			21	

YEAR 1 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite
CY1007	Climate Change	CNY-Core	3	CNYS- Courses
CY1602	Mathematics II	CNY-Core	4	
MA1001	Dynamics	C	3	
MA1008	Introduction to Computational Thinking	C	3	
MA1700	Aerospace Discovery Course	C	1	
MA2001	Mechanics of Materials	C	3	
CC0002	Navigating the Digital World	CC	2	
			19	

YEAR 1 SPECIAL SEMESTER

Course Code	Course Title	Type	AU	Pre-Requisite
CY2003	Research Attachment 3	CNY-Core	4	CNYS- Course
	Overseas Learning Trip			
			4	

YEAR 2 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite
CY0002	Ethics	CNY-Core	3	
CY1307	Quantum	BDE	3	Students can choose to opt out and replace with any other BDE course (3 AU)
MA2003	Intro to Thermo-fluids	C	3	
MA2006	Engineering Mathematics	C	3	
MA2072	Laboratory Experiments (AE)	C	1	
MA2701	Flight Performance	C	2	
CC0007	Science & Technology for Humanity	CC	3	
			18	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYS Course
CY2001	Research Attachment 1	CNY-Core	4	CNYS Course 2-semester long, course registered only in Sem 2 (similar to URECA)
MA2007	Thermodynamics	C	3	
MA2700	Aerospace Materials & Manufacturing Process	C	3	
MA2079	Engineering Innovation & Design	C	2	
MA3705	Aerospace Control Theory	C	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
			23	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MA3072	Engineering Experiments (AE)	C	1	
MA3700	Aircraft Structures I	C	3	
MA3701	Aerodynamics	C	3	
MA3702	Aircraft Propulsion	C	3	
MA3703	Flight Dynamics	C	2	
MA3704	Aircraft Electrical Devices	C	3	
MA4705	Aircraft Navigation and Flight Computers	C	3	
			18	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
MA2005	Engineering Graphics	C	3	
MA3003	Heat Transfer	C	3	
MA3006	Fluid Mechanics	C	3	
MA0218	Introduction to Data Science and Artificial Intelligence	FC	3	
			12	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite
MA3075	Professional Attachment	FC	5	
			5	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MA4701	Aircraft Design	C	3	
MA4702	Aircraft Structures II	C	3	
MA4704	Aeroelasticity	C	3	
			9	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
MA4211	CNYS Overseas Final Year Project	C	8	CNYS Course
			8	

Total AU for Graduation: **137**