

**AY2025-26 CURRICULUM FOR BACHELOR OF ENGINEERING (CIVIL)**  
**WITH CN YANG SCHOLARS PROGRAMME**  
**SECOND MAJOR IN DATA ANALYTICS (CVDA)**  
**(FIRST YEAR ADMISSION)**

Last Updated : 2-Jul-25

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Major Requirements			Interdisciplinary Collaborative Core			Broadening & Deepening Electives	Total AU
	School Core	CNYSP-Core	MPE	Common Core	Professional Series	Care, Serve, Learn		
1	19	23	0	2	0	0	0	44
2	17	10	0	5	3	3	3	41
3	19	0	0	3	6	0	3	31
4	15	0	3	0	0	0	15	33
<b>Total</b>	<b>70</b>	<b>33</b>	<b>3</b>	<b>10</b>	<b>9</b>	<b>3</b>	<b>21</b>	<b>149</b>

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1001	Cell	CNY-Core	3	CNYSP Courses
CY1101	Molecule	CNY-Core	4	
CY1308	Physics	CNY-Core	3	
CY1500	Introduction to Research	CNY-Core	2	
CY1601	Mathematics I	CNY-Core	4	
CV1011	Mechanics of Materials	C	4	
CV1711	Engineering Drawing and 3D Building Information Modelling	C	1	
			<b>21</b>	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1007	Climate Change	CNY-Core	3	CNYSP Courses
CV1012	Fluid Mechanics	C	3	
CV1013	Civil Engineering Materials	C	3	
CV1014^	Introduction To Computational Thinking	C	3	
CV2019^	Matrix Algebra & Computational Methods	C	3	
EG1001	Engineers In Society	C	2	
CC0015	Health & Wellbeing	CC	2	
			<b>19</b>	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2003	Research Attachment 3	CNY-Core	4	CNYSP Course
	Overseas Learning Trip			
			<b>4</b>	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYSP Course
CV2011	Structural Analysis I	C	3	CV1011
CV2013	Engineering Geology & Soil Mechanics	C	3	
CV2711	Civil Engineering Laboratory A	C	1	
MH2814^	Probability & Statistics	C	3	MH1810
CV0003	Introduction to Data Science and Artificial Intelligence	PS	3	CV1014
	Tech-For-Good (T4G)	CSL	3	
			<b>19</b>	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0002	Ethics	CNY-Core	3	CNYSP Course

CY2001	Research Attachment 1	CNY-Core	4	CNYSP Course
CV2014	Geotechnical Engineering	C	3	CV2013
CV2020	Water Resources Engineering	C	3	
CV2712	Civil Engineering Laboratory B	C	1	
MH1403	Algorithms and Computing	BDE-DA	3	CV1014
SP0061	Science and Technology for Humanity	CC	3	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			<b>22</b>	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CV3011	Reinforced Concrete Design	C	3	CV2011
CV3013	Foundation Engineering	C	3	CV2013 & CV2014
CV3014	Transportation Engineering	C	3	
CV3017	Urban Water Circularity	C	2	CV1012
CC0006	Sustainability: Society, Economy & Environment	CC	3	
SC4024	Data Visualization	BDE-DA	3	CV1014 & MH2814
MLxxxx	Profession Preparation	PS	1	
			<b>18</b>	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CV4211	CNYSP Overseas Final Year Project	C	8	Year 4 Standing
			<b>8</b>	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CV3910	Professional Attachment	PS	5	Year 3 standing & completed at least 4
			<b>5</b>	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CV4012	Project Planning & Management	C	2	Year 4 Standing
CV4711	Seminars on Built Environment	C	1	
CV4XXX	Major Prescribed Elective	MPE	3	Refer to Syllabus
EE4483	Artificial Intelligence & Data Mining	BDE-DA	3	CV2019, CV0003
XXXXXX	DA Elective 1	BDE-DA	3	
XXXXXX	DA Elective 2	BDE-DA	3	
			<b>15</b>	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CV2012	Structural Analysis II	C	3	CV2011
CV3012	Steel Design	C	3	CV2011
CV3016	Construction Technology & Processes	C	3	
CV4912	Integrated Design Project	C	3	Year 4 Standing
SC2207	Introduction to Database	BDE	3	MH1403
XXXXXX	DA Elective 3	BDE	3	
			<b>18</b>	

Total AU for Graduation: **149**

^ These courses are double-counted towards both CEE as well as the Second Major in Data Analytics.