

Curriculum Structure (CNYSP-IEM) (AY2020)

Code	Title	Type	AU	Prereq/Co-Req
YEAR 1 SEMESTER 1				
CY1001	Introductory Biology	Core	3	
CY1101	Principles of Modern Chemistry	Core	3	
CY1308	Physics	Core	3	
CY1500	Introductory Research Methodology	Core	3	
CY1601	Mathematics I	Core	4	
IM1004	Engineering Fundamentals 1 (IM1004 Digital Electronics)	Core	4	
GC0001	Sustainability: Seeing thru the haze	GER-Core	1	
TOTAL			21	
YEAR 1 SEMESTER 2				
CY1007	Climate Change	Core	3	
CY1307	Relativity and Quantum Physics	Core	3	
CY1400	CNYSP Undergraduate Research Experience	Core	3	
CY1602	Mathematics II	Core	4	
XXXXXX	Engineering Fundamentals 2	Core	3	
EG0001	Engineers & Society	GER-Core	3	
TOTAL			19	
Year 1 Special Term				
CY2003	Research Attachment 3 (Making & Tinkering)	Core	4	
Overseas Learning Trip				
TOTAL			4	
TOTAL (YEAR 1)			44	
YEAR 2 SEMESTER 1				
CY2001	Research Attachment 1 *	Core	4	
CY0002	Ethics	GER-Core	3	
EE1005	From Computational Thinking to Programming	Core	3	
IM1001	Data Structure and Algorithm	Core	4	
IM2003	Computer Communications	Core	3	
DA1000	Thinking and Communicating Visually I	Core	3	
TOTAL			20	
YEAR 2 SEMESTER 2				
CY0001	Writing Across the Disciplines	GER-Core	3	
EE0005	Intro to Data Science & Artificial Intelligence	GER-Core	3	EE1005
IM1002	Analog Electronics	Core	3	
IM1003	Object-Oriented Programming	Core	3	
IM2001	Software Engineering	Core	3	
IM2006	Engineering Mathematics I	Core	4	MH1811
IM2073	Introduction to Design & Project	Core	2	
TOTAL			21	

TOTAL (YEAR 2)			41
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YEAR 3 SEMESTER 1

CY0006	Enterprise, Innovation & Leadership *	GER-Core	3	
IM2004	Signals and Systems	Core	4	MH1810+MH1811
IM2007	Engineering Mathematics II	Core	4	MH1811
IM3003	Information Security	Core	3	
IM3080	Design & Innovation Project	Core	2	
ML0003	Career Preparatory Course	GER-Core	1	
TOTAL			17	

YEAR 3 SEMESTER 2

IM2002	Microprocessors	Core	4	
IM3001	Digital Signal Processing	Core	3	
IM3002	Communication Principles	Core	3	
IM4XXX	Design Elective	Major-PE	2	
DA2002	Thinking and Communicating Visually II	Core	3	
TOTAL			15	

Year 3 Special Term

IM3276	Professional Attachment	Core	5	
TOTAL			5	

TOTAL (YEAR 3)			37
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YEAR 4 SEMESTER 1

IM4081	CNYSF Overseas Final Year Project	Core	8	
TOTAL			8	

YEAR 4 SEMESTER 2

IM4XXX	Technical Elective 1	Major-PE	3	
IM4XXX	Technical Elective 2	Major-PE	3	
IM4XXX	Technical Elective 3	Major-PE	3	
DA3000	Thinking and Communicating Visually III	Core	3	
TOTAL			12	

TOTAL (YEAR 4)			20
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GRAND TOTAL 142

AU Requirement Table (CNYS-PEM) (AY2020)

Year	Major Requirements		General Educational Requirements (GER)				Total	
	Core	Major Prescribed Elective	GER-Core	GER Prescribed Elective(GER-PE)				Unrestricted Elective (GER-UE)
				Liberal Arts (LA)	Sc., Tech. & Soc. (STS)	Business & Mgmt (BM)		
1	40		4			0	44	
2	32		9			0	41	
3	31	2	4			0	37	
4	11	9	0			0	20	
TOTAL	114	11	17	0	0	0	142	

Final Year Design/Technical Electives (IEM Major-PE)

Students are required to choose 1 Design Elective and 4 Technical Electives; or 2 Design Electives and 3 Technical Electives.

Design Electives	
IM4105 Cellular Communication System Design	IM4413 DSP System Design
IM4717 Web Application Design	EE4414 Machine Learning Design and Application (TBC)
IM4718 Enterprise Network Design	
Technical Electives	
EE4491 Probability Theory and Applications (TBC)	IM4476 Image Processing
EE4497 Pattern Recognition and Machine Learning (TBC)	IM4478 Digital Video Processing
IM4756 Computer Architecture	IM4483 Artificial Intelligence and Data Mining
IM4761 Computer Networking	IM4490 Multimedia Systems
IM4791 Database Systems	CE4001 Virtual and Augmented Reality (SCE) ^Δ
IM4152 Digital Communications	CE4002 Visual Information Processing and Management (SCE) ^Δ
IM4153 Telecommunication Systems	CE4003 Computer Vision (SCE) ^Δ
IM4188 Wireless Communications	CE4004 3D Modelling and Animation (SCE) ^Δ
IM4455 Embedded Systems	CE4015 Simulation and Modelling (SCE) ^Δ
IM4475 Audio Signal Processing	
Students should not take more than 2 courses from the following group of Technical Electives:	
CS2024 Web Design and Technologies (SCI) ^Δ	
CS2025 Image and Sound Production (SCI) ^Δ	
CS2030 Audio in Media (SCI) ^Δ	
DV2008 Interface Design (ADM) ^Δ	
DM2000 Interactive I (ADM) ^Δ	
DM2007 Interactive II (ADM) ^Δ	

^Δ Vacancy is subject to availability

Check (To remove for publication)

	Core	Major-PE	GER-Core	GER-PE/UE	Course Code	
EG0001			3			
IM1xxx	14				IM1001-4	
IM2xxx	24				IM2001-4, 2006-7, 2073	
IM3xxx	16				IM3001-4, 3080	
IM4xxx	8	11			IM4080, IM4xxx	
DAxxxx	9				DA1000-3000	
CSxxxx			0		CS0204	
EExxxx	3		3		EE0005, 1005	
MH/PHxxxx	0				MH1810-1, PH1011	
xx000x			2		GC HY ET0001, ML0003	
HWxxxx					HW0288	
xxxxxx	3				GER-UE	
CYxxxx	37		9		CY	
Total	114	11	17	0	142	