

Scheme of Studies (Batch 2025 and Onwards)

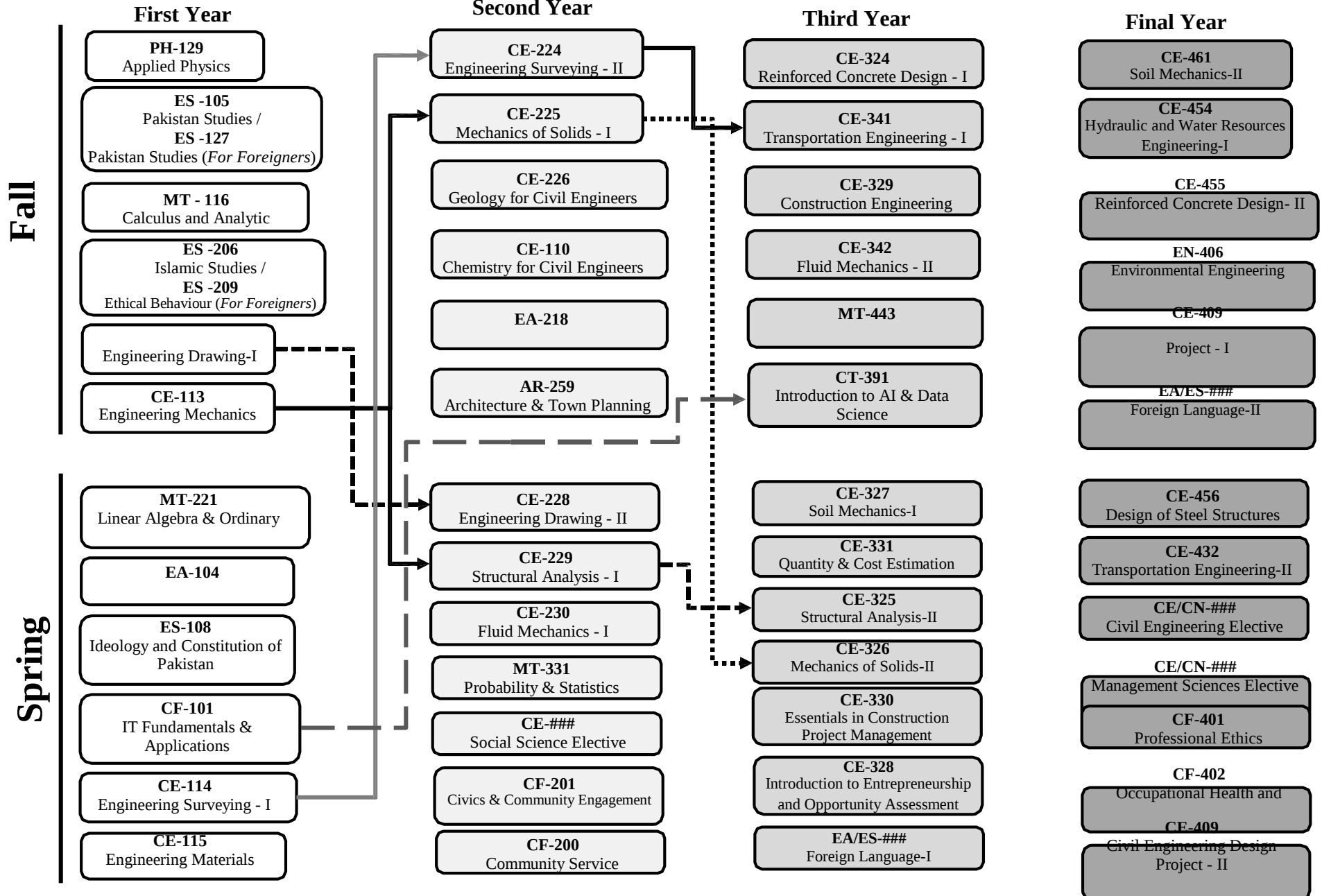
Civil Engineering									
First Year									
Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hrs			Course Code	Course Title	Credit Hrs		
		Th	Pr	Total			Th	Pr	Total
PH-129	Applied Physics	3	0	3	MT-221	Linear Algebra and Ordinary Differential Equations	3	0	3
ES-105/ ES-127	Pakistan Studies / Pakistan Studies (For Foreigners)	2	0	2	EA-104	Functional English	3	0	3
MT-116	Calculus and Analytical Geometry	3	0	3	ES-108	Ideology and Constitution of Pakistan	2	0	2
ES-206/ ES-209	Islamic Studies / Ethical Behaviour (For Non-Muslims students)	2	0	2	CF-101	IT Fundamentals and Applications	2	1	3
CE-112	Engineering Drawing-I	1	2	3	CE-114	Engineering Surveying-I	2	1	3
CE-113	Engineering Mechanics	3	1	4	CE-115	Engineering Materials	2	1	3
CY-100	Essentials of Chemistry (For computer science students)	NC	-	NC	-	-	-	-	-
Civil		14	3	17	Civil		14	3	17
Second Year									
Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hrs			Course Code	Course Title	Credit Hrs		
		Th	Pr	Total			Th	Pr	Total
CE-224	Engineering Surveying-II	3	1	4	CE-228	Engineering Drawing-II	1	2	3
CE-225	Mechanics of Solids-I	3	1	4	CE-229	Structural Analysis-I	3	0	3
CE-226	Geology for Engineers	2	0	2	CE-230	Fluid Mechanics-I	3	1	4
CE-110	Chemistry for Civil Engineers	1	1	2	MT-331	Probability and Statistics	3	0	3
EA-218	Business Communication	2	1	3	CE-###	Social Sciences Elective	2	0	2
AR-259	Architecture and Town Planning	2	0	2	CF-201	Civics and Community Engagement	2	0	2
-	-	-	-	-	CF-200	Community Service	NC	-	NC
Civil		13	4	17	Civil		14	3	17
Third Year									
Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hrs			Course Code	Course Title	Credit Hrs		
		Th	Pr	Total			Th	Pr	Total
CE-324	Reinforced Concrete Design-I	3	0	3	CE-327	Soil Mechanics-I	3	1	4
CE-341	Transportation Engineering-I	2	1	3	CE-331	Quantity and Cost Estimation	3	0	3
CE-329	Construction Engineering	3	0	3	CE-325	Structural Analysis-II	3	0	3
CE-342	Fluid Mechanics-II	2	1	3	CE-326	Mechanics of Solids-II	3	0	3
MT-443	Numerical Analysis	3	0	3	CE-330	Essentials in Construction Project Management	3	0	3
CT-391	Introduction to AI and Data Science	3	0	3	CE-328	Introduction to Entrepreneurship and Opportunity Assessment	2	0	2
-	-	-	-	-	EA/ES-###	Foreign Language-I	NC	-	NC
Civil		16	2	18	Civil		17	1	18

Fourth Year									
Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hrs			Course Code	Course Title	Credit Hrs		
		Th	Pr	Total			Th	Pr	Total
CE-461	Soil Mechanics-II	2	1	3	CE-456	Design of Steel Structures	3	0	3
CE-454	Hydraulic and Water Resources Engineering-I	3	1	4	CE-432	Transportation Engineering-II	2	0	2
CE-455	Reinforced Concrete Design-II	3	0	3	CE/CN-###	Civil Engineering Elective	2/1	0/1	2
EN-406	Environmental Engineering	3	1	4	CE/CN-###	Management Sciences Elective	2	0	2
CE-409	Civil Engineering Design Project - I	0	3	3	CF-401	Professional Ethics	2	0	2
EA/ES-###	Foreign Language-II	NC	-	NC	CF-402	Occupational Health and Safety	1	0	1
-	-	-	-	-	CE-409	Civil Engineering Design Project - II	0	3	3
Civil		11	6	17	Civil		12/11	3/4	15
	Total Credit Hours (Fall Semester)	53	16	69		Total Credit Hours (Spring Semester)	57/56	10/11	67
Total BE (Civil) Credit Hours							111/110	25/26	136

Elective Courses				
Civil Engineering Electives		Th	Pr	Total
CE-442	Applied Hydraulics	2	0	2
CE-443	Structural Design and Drawing	2	0	2
CE-444	Masonry Structures	2	0	2
CE-445	Building Information Modeling	1	1	2
CE-446	Geosynthetics and Their Applications	2	0	2
CE-447	Geoinformatics Applications	1	1	2
CE-448	Coastal and Harbour Engineering	2	0	2
CE-449	Hydraulics and Water Resource Engineering-II	2	0	2
CE-450	Commute and Mass Transit	2	0	2
CN-441	Environmental Issues in Construction	2	0	2
CN-442	Disaster and Reconstruction Management	2	0	2
Management Sciences Electives		Th	Pr	Total
CN-443	Management and Marketing of Construction Services	2	0	2
CN-444	Leadership and Human Skills in Management	2	0	2
CE-451	Modern Aspects of Construction Project Management	2	0	2
CE-452	Procurement Management	2	0	2
CE-453	Construction Contract Management	2	0	2
Social Sciences Electives		Th	Pr	Total
CE-241	Engineer and Society	2	0	2
MG-228	Sociology and Development	2	0	2
CE-242	Professional Ethics in Construction Industry	2	0	2
CF-311	Applied Economics for Engineers	2	0	2

Foreign Language - I			Foreign Language - II		
EA-220	Chinese Language-I	NC	EA-221	Chinese Language-II	NC
ES-222	Arabic Language-I	NC	ES-223	Arabic Language-II	NC
EA-224	German Language-I	NC	EA-225	German Language-II	NC
EA-226	French Language-I	NC	EA-227	French Language-II	NC
EA-231	Turkish Language-I	NC	EA-232	Turkish Language-II	NC
EA-233	Japanese Language-I	NC	EA-234	Japanese Language-II	NC
EA-235	Russian Language-I	NC	EA-236	Russian Language-II	NC

Course Dependency Chart



13. Mapping of Curriculum to PLOs

Civil Engineering Courses			Program Learning Outcomes (PLOs)										
			PLO-1	PLO-2	PLO-3	PLO-4	PLO-5	PLO-6	PLO-7	PLO-8	PLO-9	PLO-10	PLO-11
First Year	Fall	PH-129 Applied Physics*	C2	C3									
		ES-105/ ES-127 Pakistan Studies / Pakistan Studies (For Foreigners)						C2					
		MT-116 Calculus and Analytical Geometry*	C1	C3, C2									
		ES-206/ ES 209 Islamic Studies / Ethical Behaviour (For Non-Muslims students)							C2				
		CE-112 Engineering Drawing-I	P1				P3					C3	
		CE-113 Engineering Mechanics	C3 P2	C3									
		CY-100 Essentials of Chemistry* (For computer science students)											
	Spring	MT-221 Linear Algebra and Ordinary Differential Equations*	C2	C3									
		EA-104 Functional English								A3, C2, C6			
		ES-108 Ideology and Constitution of Pakistan						C2					
		CF-101 IT Fundamentals and Applications	C2				C3						
		CE-114 Engineering Surveying-I	C2	C3			P3						
		CE-115 Engineering Materials	C2			P3		C3					
Second Year	Fall	CE-224 Engineering Surveying-II	C3	C3			P3						
		CE-225 Mechanics of Solids-I	P2	C3									
		CE-226 Geology for Engineers	C3										C3
		CE-110 Chemistry for Civil Engineers	C2					P2					
		EA-218 Business Communication									C3 C6 A3		
		AR-259 Architecture and Town Planning						C2				C2	
	Spring	CE-228 Engineering Drawing-II	C3				C3 P3						
		CE-229 Structural Analysis-I	C1 C2				C4						
		CE-230 Fluid Mechanics-I	C2 P1	C3						A3			
		MT-331 Probability and Statistics*	C2	C4									
		CE-### Social Sciences Elective						C2	A3/ C4				C4/ A3/ C3
		CF-201 Civics and Community Engagement						C2					A3
		CF-200 Community Service						A3					A2

Civil Engineering Courses			Program Learning Outcomes (PLOs)										
			PLO-1	PLO-2	PLO-3	PLO-4	PLO-5	PLO-6	PLO-7	PLO-8	PLO-9	PLO-10	PLO-11
Third Year	Fall	CE-324 Reinforced Concrete Design-I	C2 C3		C4								
		CE-341 Transportation Engineering-I	C2 P3		C3								
		CE-329 Construction Engineering	C3									C4	
		CE-342 Fluid Mechanics-II	C2	C4		P2							
		MT-443 Numerical Analysis*											
		CT-391 Introduction to AI and Data Science											
	Spring	CE-327 Soil Mechanics-I	C3	C4		P3							
		CE-331 Quantity and Cost Estimation	C3	C3						A3		C2	
		CE-325 Structural Analysis-II		C4									
		CE-326 Mechanics of Solids-II		C2 C3 C4									
		CE-330 Essentials in Construction Project Management		C3 C4								C2	
		CE-328 Introduction to Entrepreneurship and Opportunity Assessment						C2	A3				C3
		EA/ES-### Foreign Language-I*											
Fourth Year	Fall	CE-409 Civil Engineering Design Project - I		C	C			C	A	A	A	A	
		CE-461 Soil Mechanics-II		C4		P3							
		CE-454 Hydraulic and Water Resources Engineering-I	C2	C4		P3							
		CE-455 Reinforced Concrete Design-II			C6								
		EN-406 Environmental Engineering			C6	P1		C2					
		EA/ES-### Foreign Language-II*											
	Spring	CE-409 Civil Engineering Design Project - II		C	C				A	C,A	C,A	C	C
		CE-456 Design of Steel Structures	C2		C6								
		CE-432 Transportation Engineering-II	C2 C3	C4									
		CE/CN-### Civil Engineering Elective*											
		CE/CN-### Management Sciences Elective										C4	
		CF-401 Professional Ethics						A	C4	C3			A
		Internship	C	C				A	A	A	A		

*Courses not mapped with individual PLOs system