

Scheme of Studies Bachelor in Civil Engineering

(Applicable from Batch 2025 onwards)

FIRST YEAR									
Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hrs			Course Code	Course Title	Credit Hrs		
		Th	Pr	T			Th	Pr	T
PH-129	Applied Physics	3	0	3	MT-221	Linear Algebra & 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 & 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	T			Th	Pr	T
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 & 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	T			Th	Pr	T
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 & 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
FINAL YEAR									
Fall Semester					Spring Semester				
Course Code	Course Title	Credit Hrs			Course Code	Course Title	Credit Hrs		
		Th	Pr	T			Th	Pr	T
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	3	15
Total Credit Hours (Fall Semester)		53	16	69	Total Credit Hours (Spring Semester)		57	10	67
Total BE (Civil) Credit Hours							111	25	136

Number of contact hours:

The contact hours for the study of courses are as follows:

1 credit hour of theory class = 1 contact hour

1 credit hour of lab/design class / practical = 3 contact hours

Elective Courses				
Civil Engineering Electives		Th	Pr	T
CE-442	Applied Hydraulics	2	0	2
CE-443	Structural Design & 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	T
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	T
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		
EA-220	Chinese Language-I	NC
ES-222	Arabic Language-I	NC
EA-224	German Language-I	NC
EA-226	French Language-I	NC
EA-231	Turkish Language-I	NC
EA-233	Japanese Language-I	NC
EA-235	Russian Language-I	NC

Foreign Language - II		
EA-221	Chinese Language-II	NC
ES-223	Arabic Language-II	NC
EA-225	German Language-II	NC
EA-227	French Language-II	NC
EA-232	Turkish Language-II	NC
EA-234	Japanese Language-II	NC
EA-236	Russian Language-II	NC