Program Educational Objectives (PEOs)(BSc Civil Engineering)

- Graduates demonstrate their proficiency of applying the knowledge and skills to solve complex civil engineering problems
- Graduates communicate effectively and contribute in the project team
- Graduates uphold principles of ethics and integrity throughout their professional practices
- Graduates engage themselves in continuous professional learning process for the sustainability

Semester-wise Scheme of Studies

Semester-wise scheme of studies for the Bachelor of Civil Engineering Technology program spanning 4 years, spread over 8 semesters, and totaling 136 credit hours is presented below, along with weekly contact hours for each course.

SEMESTER-I				
Course Codes	Course Title	Knowledge Area/Domain	Credit Hrs. (Th+Lb)	Weekly Contact Hrs. (Th+Lb)
HUM-111	Islamic Studies	Art & Humanities	3+0	3+0
NSC-111	Applied Mathematics I	Natural Sciences	3+0	3+0
CET-111	Materials and Methods of Construction	Civil Engineering Technology Foundation	2+1	2+3
NSC-112	Applied Physics	Natural Sciences	2+1	2+3
HUM-112	Functional English	Art & Humanities	3+0	3+0
CET-112	Surveying	Civil Engineering Technology Foundation	1+2	3+6
Subtotal			14+4 =18	16+12 =28
SEMESTER-II				
Course Codes	Course Title	Knowledge Area/Domain	Credit Hrs. (Th+Lb)	Weekly Contact Hrs. (Th+Lb)
CET-121	Concrete Technology	Civil Engineering Technology Foundation	1+2	1+6
HUM-121	Communication Skills	Art & Humanities	2+1	2+3
CET-122	Civil Engineering drawing, Drafting and Interpretation	Civil Engineering Technology Foundation	1+2	1+6
COM-121	Introduction to Computer Programing	Computing	1+2	1+6

NSC-121	Applied Mathematics II	Natural Sciences	3+0	3+0
NSC-122	Applied Chemistry	Natural Science	2+1	2+3
Subtotal			10+8 =18	10+24 =34
SEMESTER-III				
Course Codes	Course Title	Knowledge Area/Domain	Credit Hrs. (Th+Lb)	Weekly Contact Hrs. (Th+Lb)
CET-211	Evolution of Architecture and Engineering	Civil Engineering Technology Foundation	2+0	2+0
HUM-211	Pakistan Studies	Art & Humanities	3+0	3+0
HUM-212	Professional Ethics	Art & Humanities	2+0	2+0
CET-212	Environmental Technology	Civil Engineering Technology Foundation	1+1	1+3
CET-213	Fluid Mechanics	Civil Engineering Technology Foundation	2+1	2+3
CET-214	Mechanics of Solids	Civil Engineering Technology Foundation	2+1	2+3
Subtotal			12+3 =15	12+09 =21
SEMESTER-IV				
Course Codes	Course Title	Knowledge Area/Domain	Credit Hrs. (Th+Lb)	Weekly Contact Hrs. (Th+Lb)
CET-221	Transportation and Highway Technology	Civil Engineering Technology Breadth	2+2	2+6
HUM-221	Human Skills	Art & Humanities	2+0	2+0
CET-222	Soil Mechanics	Civil Engineering Technology Foundation	1+2	1+6
CET-223	Structural Principles	Civil Engineering Technology Breadth	2+0	2+0
HUM-222	Technical & Scientific Writing	Art & Humanities	3+0	3+0
NSC-221	Fundamentals of Applied Economics	Natural Sciences	3+0	3+0
Subtotal			13+4 = 17	13+12 = 25

SEMESTER-V				
Course Codes	Course Title	Knowledge Area/Domain	Credit Hrs. (Th+Lb)	Weekly Contact Hrs. (Th+Lb)
CET-311	Hydrology	Civil Engineering Technology Depth	1+1	1+3
CET-312	Reinforced and Prestressed Concrete	Civil Engineering Technology Depth	2+1	2+3
CET-313	Construction Equipment and Jobsite Practices	Civil Engineering Technology Breadth	2+1	2+3
CET-314	Computer Aided Drawing and Building Information Modelling	Civil Engineering Technology Depth	1+2	1+6
CET-315	Geotechnical Investigation and Foundations	Civil Engineering Technology Depth	1+1	1+3
CET-316	Electro-Mechanical Technology	Civil Engineering Technology Breadth	2+0	2+0
CET-317	Project Part -I	Civil Engineering Technology Depth	0+3	0+9
Subtotal			9+9 = 18	9+27 = 36
SEMESTER-VI				
Course Codes	Course Title	Knowledge Area/Domain	Credit Hrs. (Th+Lb)	Weekly Contact Hrs. (Th+Lb)
CET-321	Geology	Civil Engineering Technology Breadth	1+1	1+3
CET-322	Irrigation Technology	Civil Engineering Technology Depth	3+0	3+0
CET-323	Construction of Steel Structures	Civil Engineering Technology Depth	2+1	2+3
CET-324	Quantity Surveying and Estimation	Civil Engineering Technology Depth	1+2	1+6
CET-325	Maintenance and Repair of Civil Works	Civil Engineering Technology Breadth	1+1	1+3
MGM-321	Technopreneurship	Management Science	2+0	2+0

CET-326	Project Part-II	Civil Engineering Technology Depth	0+3	0+9
Subtotal			10+8 =18	10+24 =34
SEMESTER-VII Supervised Industrial Training (Optional)/List of Elective Courses				
Course Codes	Course Title	Knowledge Area/Domain	Credit Hrs. (Th+Lb)	Weekly Contact Hrs. (Th+Lb)
CET-412	GIS and remote Sensing	Civil Engineering Technology Breadth	2+1	2+3
CET-413	Ground Improvement Techniques	Civil Engineering Technology Depth	2+1	2+3
CET-414	Design Assessment Tools	Civil Engineering Technology Breadth	1+1	1+3
CET-415	Building Codes and Compliance	Civil Engineering Technology Breadth	3+0	3+0
CET-416	Smart Technologies for Facilities Management	Civil Engineering Technology Depth	2+1	2+3
CET-417	Construction Project Administration	Civil Engineering Technology Breadth	2+1	2+3
CET-418	Drainage Technology	Civil Engineering Technology Breadth	3+0	3+0
CET-419	Applied Hydraulics	Civil Engineering Technology Depth	2+1	2+3
CET-4120	Water Supply Systems	Civil Engineering Technology Depth	1+1	1+3
Note: Students can take 5 to 6 courses from the list according to the per week credit hours.				
Total Credits Hours and Contact Hours in 7th Semester(* Suggested)			9+9=16	9+27 = 36*
OR				
CET-411	Supervised Industrial Training (Compulsory)	Civil Engineering Technology Domain Industrial Training	16	40

SEMESTER-VIII				
Course Codes	Course Title	Knowledge Area/Domain	Credit Hrs. (Th+Lb)	Weekly Contact Hrs. (Th+Lb)
CET-421	Supervised Industrial Training (Compulsory)	Civil Engineering Technology Domain Industrial Training	16	40
Total Credits Hours and Contact Hours in 8th Semester			0+16= 16	0+40= 40
Total Credit Hours & Contact Hours in Four Years (When Optional Courses will be conducted instead of SIT in 7th semester)			77+59 = 136	77+169 = 246
Theory VS Practical with respect to Contact Hours			Theory Practical	76 (31.30%) 172 (68.70%)
Total Credit Hours & Contact Hours in Four Years (When SIT will be conducted in both 7th and 8th Semester)			68+68 = 136	68+188 = 256
Theory VS Practical with respect to Contact Hours			Theory Practical	67 (26.56%) 228 (73.43%)