



## Scheme of Studies

### BS Civil Engineering

Semester - I (First Year)					
S.No.	Course code	Course Title	Type	Cr. Hrs.	Pre-Reqs.
01	CE-101	Construction Materials	Theory-Lab	2+1	0
02	CE-102	Civil Engineering Drawing	Theory-Lab	1+2	0
03	NS-101	Applied Calculus	Theory	3+0	0
04	HS-101	Islamic Studies	Theory	2+0	0
05	CS-101	Introduction to Computing	Theory-Lab	2+1	0
06	HS-102	Functional English	Theory	3+0	0
Sub Total of Credit Hours				17	

Semester - II (First Year)					
S.No.	Course code	Course Title	Type	Cr. Hrs.	Pre-Reqs.
01	CE-103	Elementary Surveying	Theory-Lab	3+1	0
02	NS-102	Engineering Mechanics	Theory-Lab	2+1	0
03	HS-103	Technical Report writing & Presentation Skills	Theory	2+0	HS-102
04	NS-103	Engineering Geology	Theory-Lab	2+1	CE-101
05	HS-104	Pakistan Studies	Theory	2+0	0
06	NS-104	Differential Equations	Theory	3+0	NS-101
Sub Total of Credit Hours				17	



## Semester - III (Second Year)

S.No.	Course code	Course Title	Type	Cr. Hrs.	Pre-Reqs.
01	CE-204	Surveying and GIS-RS Applications	Theory-Lab	3+1	CE-103
02	ME-201	Mechanics of Materials	Theory-Lab	3+1	NS-102
03	HS-205	Communication Skills	Theory	2+0	HS-103
04	NS-205	Numerical Analysis	Theory-Lab	2+1	NS-104
05	HS-206	Psychology	Theory	2+0	0
06	CE-205	Construction Engineering	Theory-Lab	2+1	CE-101
Sub Total of Credit Hours				18	

## Semester - IV (Second Year)

S.No.	Course code	Course Title	Type	Cr. Hrs.	Pre-Reqs.
01	ME-202	Fluid Mechanics -I	Theory	3+0	0
02	MS-201	Engineering Economy and Construction Management	Theory-Lab	3+0	0
03	CE-206	Elementary Structural Analysis	Theory	3+0	NS-102
04	CE-207	Geotechnical Engineering -I	Theory-Lab	3+1	NS-103
05	AR-421	Introduction to Architecture and town planning	Theory-Lab	2+0	0
Sub Total of Credit Hours				16	



Semester - V (Third Year)					
S.No.	Course code	Course Title	Type	Cr. Hrs.	Pre-Reqs.
01	MS-302	Structural Analysis -II	Theory	2+0	MS-201
02	CE-308	Soil Mechanics -I	Theory	3+0	CE-206
03	CE-309	Fluid Mechanics -II	Theory	3+0	CE-308
04	CE-310	Engineering Economics & Management	Theory-Lab	3+1	CE-307
05	CE-311	Mechanics of Solids -II	Theory-Lab	3+1	ME-202
Sub Total of Credit Hours				18	

Semester - VI (Third Year)					
S.No.	Course code	Course Title	Type	Cr. Hrs.	Pre-Reqs.
01	ME-303	Structural Mechanics	Theory-Lab	3+1	CE-308
02	CE-312	Plain & Reinforced Concrete	Theory-Lab	3+1	ME-201
03	ME-304	Fluid Mechanics -II	Theory-Lab	3+1	ME-202
04	MS-303	Hazards and Disaster Management	Theory	2+0	MS-302
05	NS-306	Probability and Statistical Analysis	Theory	3+0	NS-205
06	HS-307	Professional Ethics	Theory	1+0	0
Sub Total of Credit Hours				18	



Semester - VII (Fourth Year)					
S.No.	Course code	Course Title	Type	Cr. Hrs.	Pre-Reqs.
01	CE-413	Structural Engineering	Theory	2+0	CE-312
02	CE-414	Reinforced & Pre-Stressed Concrete	Theory-Lab	3+1	CE-312
03	CE-415	Transportation Engineering	Theory-Lab	2+1	CE-103
04	CE-416	Hydraulics Engineering	Theory-Lab	2+1	ME-304
05	EL-XXX	Elective -I	Theory-Lab	2+0/1	0
06	CE-447	Project -I	Lab	0+3	0
Sub Total of Credit Hours				17/18	

Semester - VIII (Fourth Year)					
S.No.	Course code	Course Title	Type	Cr. Hrs.	Pre-Reqs.
01	CE-417	Irrigation Engineering	Theory	3+0	CE-311
02	EL-XXX	Elective -II	Theory-Lab	2+0/1	0
03	CE-418	Foundation Engineering	Theory	2+0	CE-310
04	CE-419	Environmental Engineering	Theory-Lab	3+1	ME-304
05	EL-XXX	Elective -III	Theory-Lab	3/2-0/1	0
06	CE-447	Project -II	Lab	0+3	0
Sub Total of Credit Hours				17/18	

Total Credit hours = 136 / 138 Hrs

(Minimum 124 Hrs and Maximum 140 Hrs is advised by policy provided by HEC, Pakistan to implement uniform system).



Elective courses shall be offered from the following list of approved courses subject to the availability of course teacher

Elective -1			
S.No.	Course Code	Course Title	Credit Hours
1	MS-XXX	Public Health Engineering	3/2+0/1
2	NS-XXX	Introduction to GIS & RS	1+2
3	HS-XXX	Introduction to Entrepreneurship	2+0
4	HS-XXX	Business Communication	2+0
5	CS-XXX	Quantity surveying & cost estimation	3+0

Elective -2			
S.No.	Course Code	Course Title	Credit Hours
1	CS-XXX	Building Information Modeling	3/2+0/1
2	CS-XXX	Computer Aided Design	0+2
3	CS-XXX	Masonry Structures	3/2+0/1
4	CS-XXX	Traffic Management & Pavement Design	3/2+0/1
5	CS-XXX	Structural Design and Drawing	3/2+0/1
6	CS-XXX	Finite Element Method (FEM)	3/2+0/1

Elective -3			
S.No.	Course Code	Course Title	Credit Hours
1	CS-XXX	Design of Structures	3/2+0/1
2	CS-XXX	Sustainable Construction	2+1
3	CS-XXX	Civil Engineering Software's	2+0
4	CS-XXX	Heavy Construction Equipment & Operations	1+2
5	CS-XXX	Earthquake resistant Design of Concrete Structures	3/2+0/1
6	CS-XXX	Geometric Design of Highways & Airports	3/2+0/1