SEMESTER - VI

SL No.	Course No.	Course Title	Contact Hours/ Week	Credit
1.	CE 307	Hydrology	3.0	3.0
2.	CE 313 Prereq. CE 311	Structural Analysis & Design-II	3.0	3.0
3.	CE 317 Prereq. CE 315	Reinforced Concrete-II	3.0	3.0
4.	CE 333 Prereq. CE 331	Geotechnical Engineering-II	3.0	3.0
5.	CE 351	Transportation Engineering-I	3.0	3.00
6.	CE 318	Reinforced Concrete Sessional-II	3.0	1.50
7.	CE 334	Geotechnical Engineering Sessional-II	3/2	0.75
8.	CE 352	Transportation Engineering Sessional-I	3/2	0.75
Total			**21**	**18**

Prereq. = Prerequisite

No. of Theory Courses = 05 Total Contact Hour =21
No. of Sessional Courses = 03 Total Credit = 18

SEMESTER - VI

CE 307 Hydrology

Lecture:3 hrs/ week **Credit:3.00**

Introduction: Hydrologic cycle, meteorological aspects of Hydrology, precipitation, water losses, interception, evaporation, transpiration and infiltration. Run off: Factors affecting run off, estimation of run off, stream flow, stream flow hydrograph, overland flow, flood rating, statistical methods in hydrology.

Ground water: Introduction, aquifer properties and ground water flow, well hydraulics, quality of ground water, ground water recharge, design, drilling and construction of water wells.

CE 313 Structural Analysis and Design-II

Lecture:3 hrs/ week **Credit:3.00**
Prereq. CE 311

Approximate analysis of statically indeterminate structures, deflection of beams, frames and trusses by virtual work method. Two hinged arches. Introduction to moment distribution method.

CE 317 Reinforced Concrete-II

Lecture: 3 hrs/ week
Credit: 3.00
Prereq. CE 315

Two way slabs, columns, isolated and combined footings, retaining walls, reinforced concrete floor and roof systems, flat slabs and flat plates, review of codes, plastic hinge idea and collapse mechanism, yield line method. Introduction of prestressed concrete.

CE 318 Reinforced Concrete Sessional-II

Contact Hours: 3 hrs/ week
Credit: 1.50

Design of a slab bridge and a deck-girder bridge.

CE 333 Geotechnical Engineering-II

Lecture: 3 hrs/ week
Credit: 3.00
Prereq. CE 331

Soil investigation techniques, direct measurement of consistency and relative density, correlation of strength parameters with N-Values, lateral earth pressure, stress distribution, settlement

computation, types of foundations, bearing capacity of shallow and deep foundation, settlement and distortion of foundations and slope stability analysis.

CE 334 Geotechnical Engineering Sessional-II

Contact Hours: 1.5 hrs/ week

Credit: 0.75

Direct shear test, unconfined compression test, triaxial compression test, relative density test, consolidation test, Field test (SPT).

CE 351 Transportation Engineering-I

Lecture: 3 hrs/ week

Credit: 3.00

Introduction to transportation engineering, development of transportation system, elements of transportation system, transportation in Bangladesh, transportation planning concepts: collection, study and analysis of basic data. Highway location and surveys. Geometric design of highways: elements of design, cross-section elements, curves and sight distances, road intersections. Traffic engineering: the road/ traffic system, vehicle and traffic characteristics, traffic control devices, traffic studies, parking and roadway lighting,

Highway materials: desirable properties of road aggregate; production, properties and uses of bituminous material

Road safety engineering: Accident data system, Road engineering, Traffic legislation, Traffic enforcement, Driver training & testing, Vehicle safety, Education & publicity, Medical services.

CE 352 Transportation Engineering Sessional-I

Lecture: 1.5 hrs/ week

Credit: 0.75

Roadway capacity studies, Tests on road aggregate, Tests on bituminous material.