

SYLLABI OF ALL DEPARTMENTS

FACULTY OF CIVIL ENGINEERING

DEPT OF CIVIL ENGINEERING

Total Credit Hours: 160.00

Level-1, Term-I

Course Code	Course Name	Type of Course	Contact Hour	Credits
CE 101	Analytical Mechanics	Theory	3.00	3.00
PHY 101	Waves and Oscillation, Optics and Modern Physics	Theory	3.00	3.00
CHEM 101	Fundamentals of Chemistry	Theory	3.00	3.00
MATH 101	Differential and Integral Calculus	Theory	3.00	3.00
GEBS 101/GE S 101	Bangladesh Studies/Fundamentals of Sociology	Theory	2.00	2.00
Subtotal (Theory)			14.00	14.00
CSE 176	Computer Programming Sessional	Sessional	3.00	1.50
ME 132	Workshop Technology Sessional	Sessional	3.00	1.50
CHEM 102	Chemistry Sessional	Sessional	3.00	1.50
CE 100	Civil Engineering Drawing	Sessional	3.00	1.50
Subtotal (Sessional)			12.00	6.00
Total =			26.00	20.00

Level-2, Term-I

Course Code	Course Name	Type of Course	Contact hours	Credits
MATH 201	Vector Analysis, Laplace Transform and Coordinate Geometry	Theory	3.00	3.00
GEA 201/ GEE 201	Principles of Accounting/ Fundamentals of Economics	Theory	2.00	2.00
CE 203	Engineering Geology and Geomorphology	Theory	3.00	3.00
CE 211	Mechanics of Solids I	Theory	3.00	3.00
CE 261	Fluid Mechanics	Theory	3.00	3.00
Subtotal (Theory)			14.00	14.00
CE 200	Details of Construction	Sessional	3.00	1.50
CE 210	GIS and Remote Sensing	Sessional	3.00	1.50
CE 262	Fluid Mechanics Sessional	Sessional	3.00	1.50
LANG 202	Communicative English II	Sessional	3.00	1.50
Subtotal (Sessional)			12.00	6.00
Total =			26.00	20.00

Level-1, Term-II

Course Code	Course Name	Type of Course	Contact Hour	Credits
PHY 107/ CHEM 105	Structure of Matter, Heat and Temperature, Kinetics and Environmental Chemistry	Theory	3.00	3.00
MATH 103	Differential Equations and Matrix	Theory	3.00	3.00
GELM 175	Leadership and Management	Theory	2.00	2.00
EECE 165	Basic Electrical Technology	Theory	3.00	3.00
CE 103	Surveying and Spatial Information Engineering	Theory	3.00	3.00
Subtotal (Theory)			14.00	14.00
PHY 102	Physics Sessional	Sessional	3.00	1.50
LANG 102	Communicative English I	Sessional	3.00	1.50
CE 102	Computer Aided Drawing	Sessional	3.00	1.50
CE 104	Practical Surveying	Field work	3wks	1.50
Subtotal (Sessional & Field Work)			9.00	6.00
Total =			23.00	20.00

Level-2, Term-II

Course Code	Course Name	Type of Course	Contact hours	Credits
MATH 203	Applied Mathematics for Engineers	Theory	3.00	3.00
GEEP 203	Engineering Ethics and Professional Practices	Theory	2.00	2.00
CE 201	Engineering Materials	Theory	3.00	3.00
CE 205	Numerical Methods for Engineering	Theory	3.00	3.00
CE 213	Mechanics of Solids II	Theory	3.00	3.00
Subtotal (Theory)			14.00	14.00
CSE 274	Engineering Computations Sessional	Sessional	3.00	1.50
ARCH 214	Architectural, Engineering and Planning Appreciation	Sessional	3.00	1.50
CE 208	Quantity Surveying	Sessional	3.00	1.50
CE 212	Structural Mechanics and Materials Sessional	Sessional	3.00	1.50
Subtotal (Sessional)			12.00	6.00
Total =			26.00	20.00

Level-3, Term-I

Course Code	Course Name	Type of Course	Contact hours	Credits
CE 311	Structural Analysis and Design I	Theory	4.00	4.00
CE 315	Design of Concrete Structures I	Theory	3.00	3.00
CE 331	Environmental Engineering I	Theory	3.00	3.00
CE 341	Principles of Soil Mechanics	Theory	4.00	4.00
GESP 303	Sustainability of Development Projects	Theory	2.00	2.00
Subtotal (Theory)			16.00	16.00
GERM 352	Fundamentals of Research Methodology	Sessional	2.00	1.00
CE 332	Environmental Engineering Sessional	Sessional	3.00	1.50
CE 342	Geotechnical Engineering Sessional	Sessional	3.00	1.50
Subtotal (Sessional)			8.00	4.00
Total =			24.00	20.00

Level-3, Term-II

Course Code	Course Name	Type of Course	Contact hours	Credits
CE 317	Design of Concrete Structures II	Theory	3.00	3.00
CE 333	Environmental Engineering II	Theory	4.00	4.00
CE 343	Foundation Engineering	Theory	3.00	3.00
CE 351	Fundamentals of Transportation Engineering	Theory	3.00	3.00
CE 361	Open Channel Hydraulics	Theory	3.00	3.00
Subtotal (Theory)			16.00	16.00
CE 300	Civil Engineering Students' Internship Programme (CESIP)	Internship	3 wks	1.50
CE 316	Concrete Structures Design Sessional I	Sessional	3.00	1.50
CE 362	Open Channel Hydraulics Sessional	Sessional	3.00	1.50
Subtotal (Sessional)			6.00	4.50
Total =			22.00	20.50

Level-4, Term-I

Course Code	Course Name	Type of Course	Contact hours	Credits
CE 411	Structural Analysis and Design II	Theory	3.00	3.00
CE 413	Design of Steel Structures	Theory	3.00	3.00
CE 451	Highway Materials, Pavement Design and Railways	Theory	4.00	4.00
CE 463	Hydrology and Irrigation Engineering	Theory	4.00	4.00
Subtotal (Theory)			14.00	14.00
CE 410	Concrete Structures Design Sessional II	Sessional	3.00	1.50
CE 414	Steel Structures Design Sessional	Sessional	3.00	1.50
CE 452	Highway Materials, Mix Design and Traffic Engineering Sessional	Sessional	3.00	1.50
CE 400	Final Year Research Project (FYP)	Thesis	2.00	1.00
CE 450	Capstone Project	-	2.00	1.00
Subtotal (Thesis, Sessional & Project)			13.00	6.50
Total =			27.00	20.50

Level-4, Term-II

Course Code	Course Name	Type of Course	Contact hours	Credits
GEPM 401	Project Planning and Construction Management	Theory	3.00	3.00
CE 4XX	Two Theory Courses in Major Division from Elective Courses	Theory	4.00	4.00
CE 4XX	Two Theory Courses in Minor Division from Elective Courses	Theory	4.00	4.00
Subtotal (Theory)			11.00	11.00
CE 400	Final Year Research Project (FYP) from Elective Courses	Thesis	6.00	3.00
CE 450	Capstone Project	-	4.00	2.00
CE 4XX	One Lab Course in Major Division from Elective Courses	Sessional	3.00	1.50
CE 4XX	One Lab Course in Major Division from Elective Courses	Sessional	3.00	1.50
Subtotal (Thesis, Sessional)			16.00	8.00
Total =			27.00	19.00

**List of Elective Courses for Structural Discipline
(Any Two Theory & One Sessional) (Level-4, Term-II)**

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 415	Pre-stressed Concrete	Theory	2.00	2.00
2.	CE 417	Design of Concrete Structures III	Theory	2.00	2.00
3.	CE 419	Introduction to Finite Element Method	Theory	2.00	2.00
4.	CE 421	Dynamics of Structures	Theory	2.00	2.00
5.	CE 423	Structural Safety	Theory	2.00	2.00
6.	CE 425	Seismic Design of Structures	Theory	2.00	2.00
7.	CE 427	Advanced Solid Mechanic	Theory	2.00	2.00
8.	CE 429	Design of Steel-Concrete Composite Structure	Theory	2.00	2.00
9.	CE 412	Bridge Design Sessional	Sessional	3.00	1.50

**List of Elective Courses for Environment Discipline
(Any Two Theory & One Sessional) (Level-4, Term-II)**

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 431	Natural Resources and Renewable Energy	Theory	2.00	2.00
2.	CE 433	Solid and Hazardous Waste Management	Theory	2.00	2.00
3.	CE 435	Environmental Pollution and Management	Theory	2.00	2.00
4.	CE 437	Climate Change and Disaster Management	Theory	2.00	2.00
5.	CE 439	Environmental Impact Assessment and Sustainability	Theory	2.00	2.00
6.	CE 432	Design of Water Supply, Sanitation and Sewerage Systems	Sessional	3.00	1.50

**List of Elective Courses for Geotechnical Discipline
(Any Two Theory & One Sessional) (Level-4, Term-II)**

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 443	Earth Retaining Structures	Theory	2.00	2.00
2.	CE 445	Elementary Soil Dynamics	Theory	2.00	2.00
3.	CE 447	Soil-Water Interaction	Theory	2.00	2.00
4.	CE 449	Numerical Methods in Geotechnics	Theory	2.00	2.00
5.	CE 442	Foundation Design Sessional	Sessional	3.00	1.50

**List of Elective Courses for Transportation Discipline
(Any Two Theory & One Sessional) (Level-4, Term-II)**

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 453	Traffic Engineering Design and Management	Theory	2.00	2.00
2.	CE 455	Pavement Management, Drainage and Airport Engineering	Theory	2.00	2.00
3.	CE 457	Urban Transportation Planning & Management	Theory	2.00	2.00
4.	CE 459	Intelligent Transportation System	Theory	2.00	2.00
5.	CE 461	Railway Engineering	Theory	2.00	2.00
6.	CE 454	Traffic Studies and Pavement Design Sessional	Sessional	3.00	1.50

List of Elective Courses for Water Discipline (Any Two Theory & One Sessional) (Level-4, Term-II)

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 465	Groundwater Engineering	Theory	2.00	2.00
2.	CE 467	Flood Mitigation and Management	Theory	2.00	2.00
3.	CE 469	River Engineering	Theory	2.00	2.00
4.	CE 471	Hydraulic Structures	Theory	2.00	2.00
5.	CE 473	Coastal Engineering	Theory	2.00	2.00
6.	CE 472	Hydraulic Structures Design Sessional	Sessional	3.00	1.50