

## FIRST YEAR

No	subject	Studying Hours						Units
		First Semester			Second Semester			
		Theoretical	Practical	Applicatory	Theoretical	Practical	Applicatory	
1	Mathematics I	3	-	1	3	-	1	6
2	Engg. mechanics	3	-	1	3	-	1	6
3	Computer Science	2	2	-	2	2	-	6
4	Engg. Drawing & Descriptive Geometry	-	4	-	-	4	-	4
5	Engg. Statistics	1	-	1	1	-	1	2
6	Engg. Workshop	-	2	-	-	2	-	2
7	English Language	1	-	1	1	-	1	2
8	Building Material Science	2	1	-	2	1	-	5
9	Engg. Geology	1	-	1	1	-	1	2
10	Human Rights	1	-	1	1	-	1	2
Total		14	9	6	14	9	6	37
Total hour at Week		29			29			

### CE 101 Building Materials

Properties and building Materials, Clay Bricks, Properties of Clay Bricks, Manufacture of Clay Bricks, Other Types of Bricks (Refractory Bricks, Sand Lime Bricks, Glass Bricks, Glazed Bricks and Concrete Bricks), Mortar and Binders, Gypsum Mortar (Properties and Types), Lime Mortar, Types of Cements, Stress and Strain, Measurement Devices of Stress/Strain, Wood (Types, Properties and Test of Wood), Tiles (Types and Properties) and Masonry Stone (Types and Properties).

### CE 102 Engineering Mechanics

Introduction, Basic Concepts, Composition and Resolution of Forces, Principle of Moments and Couples, Resultants of Force Systems, Equilibrium and Free-Body Diagram, Frames in the Plane, Trusses in the Plane, Frames and Trusses in the Space, Friction, Centroid and Centers of Gravity, Second Moments of Area or Moment of Inertia, Polar Moment of Inertia, Products of Inertia, Absolute Motion, Force, Mass and Acceleration.

### CE 103 Mathematics I

intervals, Inequalities, Functions, Parametric Functions,

Limits and Continuity, Derivatives, Application of Derivatives, Conical Sections, Integrations, Application of Definite Integrals, Techniques of Integration, the Calculus of Transcendental Functions, Plane Curves, Infinite Series, Determinates, Matrices.

### **CE 104 Engineering Geology**

Rocks and Minerals, Structural Geology, Factors Affecting Earth Crust, Soil, Physical and Mechanical Properties of Soils and Rocks, Stresses in Rocks, Underground Water Geology and Geological Maps.

### **GE 105 Computer Programming I**

Introduction to computers and historical review, Computer Components

and Hardware, Operating systems review and windows evolution,

Introduction to windows XP, Microsoft® Office (word , Excel , Power point),

Introduction to programming Languages, Basic Language (Constants and

Variables, Library Functions, Input and Output Statements, Conditional and

Unconditional Branches, Loops, Arrays and Matrices, Subroutines and

Applications).

### **CE 106 Engineering Statistics**

Description and Classification of Data, Frequency Distribution

(Cumulative Frequency Distribution, Frequency Histogram, Frequency

Polygon, Frequency Curve and Relative Frequency), Measurements of Central

Tendency (Mathematical Mean, Mode, Geometric Mean and Harmonic

Mean), Measures of Dispersion (Standard Deviation, Variance, Coefficient of

Variance, Range and Mean Absolute Deviation), Theory of Probability,

Permutation and Combination, Statistical Probability Distributions

(Poisson, Binomial and Normal), Sampling and Testing of Significant Chi-Square Distribution and Linear Correlation and regression.

**CE 107 Engineering Drawing**

Introduction and Instruments, Lines and Lettering, Applied Geometry, Projection, Dimensions, Isometric, Sections, Structural Drawing (Plan, Foundation Plan, Lintels, Slabs Reinforcement Plan, Section through Building and Stairs). Drawings by computer, Auto CAD trainings

**GE 108 Human Rights**

**GE 109 English Languages**

Grammars, Pronunciation, Selected Paragraphs in Civil Engineering.

**GE 110 workshops**