

Second year

No.	Subject	Studying Hours						Units
		First Semester			Second Semester			
		Theoretical	Practical	Applicatory	Theoretical	Practical	Applicatory	
1	Mathematics II	3	-	1	3	-	1	6
2	Mechanics of Material	3	-	1	3	-	1	6
3	Computer Science	1	2	-	1	2	-	4
4	Surveying	2	3	1	2	3	1	7
5	Building Construction & Civil Drawing	1	1	1	1	1	1	3
6	Fluid Mechanics	2	1	1	2	1	1	5
7	Concrete Technology	2	2	-	2	2	-	6
Total		14	9	5	14	9	5	37
Total hour at Week		28			28			

GE 201 Mathematics

Conical Sections, Parametric Equations, Polar Coordinates, Vectors and Analytical Geometry in Space, Functions of Two or more Variable and their Derivatives, Multiple Integral.

CE 201 Surveying

Introduction, Distance Measurements, Chain Surveying, Levels and Leveling, Areas and Volumes, Contours and Contouring, Theodolites, Traversing, Indirect Distance, Setting-Out Works, Theory of errors, Triangulation and Water Surface Areas.

CE 203 Mechanics of Materials

Introduction, Stress and Strain, Hook's Law, Riveted Connections, Thin

Walled Pressure Vessels, Axially Loaded Members, Equations of Equilibrium

and Compatibility, Thermal Strains, Transformation of Stresses and Strains,

Principal Stresses, Torsion, Axial Force, Shear, and Bending Moment

Diagrams, Bending Stresses, Composite Beams, Shearing Stresses in Beams,

Shear Center and Shear Flow, Compound Stresses, Deflection of Beams,

Direct Integration Method, Moment-Area Method, Buckling of Columns.

GE 204 Computer Programming

Introduction to Visual Basic 6 and user interface, Basic components and their use, Forms, Variable declaration, types, effective time + exercises, Textbox, Labels, command button + exercises, Frame, checkbox, radio button, List Box + Combo Box, Scroll Bar + Picture Box, Introduction to Mat Lab and user interface, Variables and workspace, Operators, expressions and statements, Repeating with for, Decision, Complex numbers, More on input and output, Introduction to graphics.

CE 205 Fluid Mechanics

Fluid Properties and Flow Characteristics, Pressure Variations in Static Fluid, Hydrostatic Force on Plane Surfaces, Hydrostatic Pressure Forces on Curved Surfaces, Buoyancy, Accelerated Fluid Masses, Kinematics of Fluid Motion, Applications of Energy Equations, Momentum Equations,

Flow of
Real Fluid, Similitude and Dimensional Analysis, Fluid Flow in
Pipes,
Friction Losses, Minor Losses, Pipes in Series, Pipes in Parallel
Network,
Fluid Flow in Open Channels, Specific Energy and Transitions.

CE 206 Building Constructions

Types of Buildings, earthwork, Footing and Foundations, Piles and
Piling, Concrete Works, Bricks and Blocks works, Masonry
Works, Forms and Scaffoldings, Floors and Roofs, Arches, Lintels
and Sills, Damp Proofing, Finishing of Walls and Ceilings, Doors
and Windows, Means of Moving Between Levels, Fire Places and
Chimneys and Joints in Buildings.

CE 207 Concrete Technology

Concrete Aggregate, Portland cement, Types of Cement,
Concrete Mix design, Fresh Concrete, Strength of Concrete,
Elasticity, Shrinkage and Creep and Durability of Concrete.