NARAYANA ENGINEERING COLLEGE::NELLORE

DEPARTMENT OF CIVIL ENGINEERING

COURSE OUTCOMES

II year I Sem NECN 21

| Subject Code | Subject | Course Outcomes | Blooms Level |
|-----------------|---------------------------------------|--|-----------------|
| | | Identify the properties of fluids, Pressure and Understand the importance of flow measurement & Statics. | BL-2 |
| 21ES1009 | Mechanics of Fluids | 2. Determine the hydrostatic forces and buoyancy forces on different bodies. | BL-3 |
| | | 3. Understand the kinematics of fluid's with different equations like continuity equation etc. | BL-2 |
| | | 4. Find the velocity & discharge by using orifices, notches & weirs. | BL-2 |
| | | Understand the friction, minor & major losses in pipes and its experimental procedures. | BL-2 |
| 21CE2001 | Building Construction and Planning | 1. Understand the different types of foundation, masonry, Floors | BL-2 |
| | | 2. Understand the different types of Arches, Doors and Windows, Lintels and Roof | BL-2 |
| | | 3. Demonstrate the causes of DPC and treatment of water leakages | BL-3 |
| | | 4. Learn the different building Bylaws and Building planning | BL-1 |
| | | 5. Memorizes Learn the different planning of building and Residential building | BL-1 |
| 21CE2002 | Mechanics of Solids | 1. Explain the concepts of simple stresses and strains and estimation of stresses. | BL-2 |
| | | 2. Examine the variation of bending moment and shear force at any section of a member. | BL-3 |
| | | Assess Bending and shear stresses in beams subjected to different loadings for different machine parts | BL-5 |
| | | 4. Ability to transform the state of stress at a point and determine the principal and maximum shear stresses using equations as well as the Mohr's circle | BL-3 |
| | | 5. Explain the types of column and apply the Euler's theory to find the parameters for different end condition. | BL-2 |
| | | 1. Generalized the basic concept of surveying and chain surveying | BL-2 |
| 21CE2003 | Surveying - I | 2. Identify the methods of compass surveying and Plane Table surveying | BL-2 |
| | | 3. Calculate the levelling surveying | BL-2 |
| | | 4. Compute the Theodolite and Traversing surveying | BL-2 |
| | | 5. Measure the contouring & computation of areas and volumes | BL-2 |

NARAYANA ENGINEERING COLLEGE::NELLORE

COURSE OUTCOMES

II year II Sem NECN 21

| Subject Code | Subject | Course Outcomes | Blooms Level |
|-----------------|--|--|-----------------|
| | | 1. Explain the properties of the constituent materials of concrete and its Manufacturing. | BL-2 |
| 21CE2004 | Concrete Technology | 2. Study the behavior of concrete at its fresh and hardened state, describe and carry out tests relevant to the use of concrete on site. | BL-2 |
| | | 3. Explain factors affecting strength of concrete and their properties. | BL-5 |
| | | 4. Define special concretes, their application for practical purpose. | BL-1 |
| | | 5. Understand the factors influencing concrete mix & know the BIS method of mix design. | BL-2 |
| 21CE2005 | Hydraulics & Hydraulic Machinery | 1. Illustrate types of flows and types of channels and velocity distribution. | BL-2 |
| | | 2. Understand the non-uniform flow in open channels | BL-2 |
| | | 3. Classify the concepts on impact of jets and impulse turbines | BL-2 |
| | | 4. Demonstrate the reaction turbines components and working principle | BL-2 |
| | | 5. Discuss the working principles of centrifugal pumps | BL-2 |
| | | 1. Analyze statically indeterminate Beams and Frames | BL-4 |
| 21CE2006 | Structural Analysis | 2. Analyze indeterminate structures | BL-4 |
| | | 3. Analyze the structure using Flexibility method | BL-4 |
| | | 4. Analyze the structure using Stiffness method | BL-4 |
| | | 5. Analyze the three hinged arches, Draw influence line diagram | BL-4 |
| | | 1. Apply the knowledge of principles and purpose of Tacheometry in finding out the constants | BL-3 |
| 21CE2007 | Surveying - II | 2. Formulate the Triangulation and setting out of curve by linear and angular methods. | BL-4 |
| | | 3. Classify the different types of curves | BL-2 |
| | | 4. Summarize the basic principles of GPS and total station, EDM in civil engineering | BL-2 |
| | | 5. memorize the basic principles of remote sensing and geographical information systems | BL-1 |

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DEPARTMENT OF CIVIL ENGINEERING

III year I Sem NECN 21

| Subject Code | Subject | Course Outcomes | Blooms Level |
|-----------------|---|--|-----------------|
| 21CE2008 | | Apply clauses of IS:456-2000 code design specifications for different structural designs &Design the beams with different end conditions | BL-3 |
| | Design of Reinforced Concrete Structures | 2. Understand and Design the beams for shear, torsion and bond | BL-2 |
| | | 3. Design one way slabs and two way slabs with different end conditions | BL-6 |
| | | 4. Design the RCC columns with combined bending and compression | BL-6 |
| | | 5. Design foundations and stair cases of different shapes | BL-6 |
| 21CE2009 | | Classify various types of soils using USCS and IS classification methods | BL-2 |
| | Soil Mechanics | 2. Determine the permeability of soils and stratified soils. | BL-3 |
| | | 3. Calculate the stress distribution in foundations. | BL-2 |
| | | 4. Determination of settlement of foundations. | BL-3 |
| | | 5. Calculate the shear strength of soil under different drainage conditions. | BL-2 |
| | Highway Engineering | 1. Students able to know about types of roads and their development from time to time and current projects. | BL-2 |
| 21CE2010 | | 2. Analyze the planning process required for highways and design the geometric features. | BL-4 |
| 21CE2010 | | 3. Evaluate and recommend suitable highway materials. | BL-5 |
| | | 4. Design of flexible& rigid pavement. | BL-6 |
| | | 5. Analyze the traffic characteristic, parking facilities and their solutions using intersections. | BL-4 |
| | | 1. Understand the necessity ground Improvement Techniques . | BL-2 |
| 21CE4005 | | 2. To enable the student to understand Dynamic compaction . | BL-2 |
| | Professional Elective- I (Ground | 3. Understand Ground Improvement by dewatering methods. | BL-2 |
| | Improvements) | 4. Understand different types admixtures and their suitability conditions. | BL-2 |
| | | 5. To enable the student to understand about grouting and soil nailing. | BL-2 |

NARAYANA ENGINEERING COLLEGE::NELLORE

DEPARTMENT OF CIVIL ENGINEERING

III year II Sem NECR21

| Subject Code | Subject | Course Outcomes | Blooms Level |
|-----------------|--|---|-----------------|
| | Water Resources Engineering | 1. Understand various components of hydrologic cycle that affect the movement of water in the earth | BL-2 |
| | | 2. Understand Various Infiltration technique | BL-2 |
| 21CE2011 | | 3. Analyze the distribution of water. | BL-5 |
| | | 4. Understand the concepts of movement of ground water beneath the earth | BL-2 |
| | | Distribution systems for canal irrigation and the basics of design of Reservoir | BL-4 |
| | | 1. Identify the sources of water and intake works for collection to forecast and calculate water demand. | BL-3 |
| | | 2. Understands the stages and process of water treatment methods. | BL-2 |
| 21CE2012 | Environmental Engineering | Understand the various methods of conveyance and distribution of water. Be able to design pipe-networks by hardy-cross method. Understand various joints, valves and house service connections. | BL-2 |
| | | Analyze the waste water collection system & its characteristics. | BL-4 |
| | | 5. Explain the processing and management of waste water and sludge treatment. | BL-2 |
| | Foundation Engineering | 1. Understand the necessity of soil exploration. | BL-1 |
| 21CE2013 | | 2. To enable the student to analyze slopes of stability. | BL-2 |
| | | 3. Compute Earth pressures acting on the retaining walls. | BL-2 |
| | | 4. Understand the design of shallow foundations. | BL-3 |
| | | 5. Design the well foundations and Pile foundations. | BL-3 |
| | Professional Elective II (Air Pollution & Control) MOOCS | 1. Understand deferent types of air pollutants, their effects, and Quality standards. | BL-2 |
| 21CE4008 | | Identify Factors influencing air pollution and Plume behaviour. | BL-3 |
| | | Explain various types of air pollution controlling equipments. | BL-2 |
| | | 4. Demonstrate various control methods of Gaseous pollution. | BL-2 |
| | | 5. List the Vehicular pollution . | BL-1 |
| 21CE4011 | Professional Elective III(Prestressed Concrete) | 1. Understand the development & methods of pre- stressing. | BL-2 |
| | | 2. Understand the losses in pre-stressing. | BL-2 |
| | | 3. Analyse and design the sections to withstand flexure. | BL-4 |
| | | 4. Design various pre-stressed concrete structural elements for shear. | BL-6 |
| | | 5. Analyze control deflections in pre-stressed concrete beams. | BL-4 |



DEPARTMENT OF CIVIL ENGINEERING

IV year I Sem NECR21

| Subject Code | Subject | Course Outcomes | Blooms Level |
|-----------------|---|--|-----------------|
| 21CE2014 | Design of Steel Structures | Explain the terms, design philosophies and relevant IS codes & Design the Bolted and Welded connections. | BL-2 |
| | | Design & Detailing of Tension, compression & Built-up members under different conditions. | BL-6 |
| | | 3. Design & Detailing of laterally supported and unsupported beams. | BL-6 |
| | | 4. Design of Beam-Column & Eccentric connections | BL-6 |
| | | Design & Detailing of components of Plate girder. | BL-6 |
| | | 1. Estimate the various structural elements | BL-5 |
| a1 (172015 | Estimation and | 2. Illustrate various methods of detailed estimates for different structures | BL-2 |
| 21CE2015 | Quantity Surveying | 3. Explain the specifications | BL-2 |
| | | 4. Analyze the Rate analysis | BL-4 |
| | | 5. Summarize the valuation of buildings | BL-2 |
| | Professional Elective -IV(Municipal Solid Waste Management) | 1. Understand the solid waste management. | BL-2 |
| 21CE4018 | | 2. Study of comparative assessment of waste generation and composition of developing and developed nations | BL-1 |
| | | 3. Understand the transportation and disposal of solid waste (waste disposal). | BL-2 |
| | | 4. Study of product recovery and recycling of solid waste. | BL-1 |
| | | 5.Understand Recovery Of Biological Conversion Products | BL-2 |
| | Professional Elective- V(Environmental | 1.Classify the different methodologies of EIA and conditions under which a particular method can be adopted. | BL-2 |
| | | 2.Find conservation areas and plant species at risk. | BL-1 |
| 21CE4023 | | 3.Illustrate the important plant or animal groups. | BL-2 |
| | Impact Assessment) | 4.Determine how well the environmental | BL-5 |
| | | management systems and equipment are performing. Verify compliance with the relevant | |
| | | national, local or other laws and regulations. | |
| | | 5.Prepare EIA reports. | BL-4 |