



NIIST BHOPAL

NRI INSTITUTE OF INFORMATION SCIENCE & TECHNOLOGY
DEPARTMENT NAME: CIVIL ENGG

BRANCH CIVIL

SESSION JULY-DEC 2021

Course Objective & Course Outcome

SEMESTER -VII

SUBJECT/CODE : Geotechnical engineering/ CE701

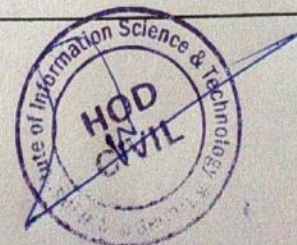
Course Objective:	Acquire knowledge of basics of soil mechanics and soil properties
Course Outcome:	Students will be able to-
Outcome1	Students are able to classify soils.
Outcome2	Students are able to know how water affect the soil parameters
Outcome3	Students are able to understand the compaction, consolidation and shear strength parameters of soil.
Outcome4	Students are able to calculate the compaction, consolidation and shear strength of soil

SUBJECT/CODE : RCC-II / CE702

Course Objective:	To become familiar with professional and contemporary issues in the design and fabrication of reinforced concrete members.
Course Outcome:	Students will be able to-
Outcome1	To understand the general mechanical behaviour of reinforced concrete in accordance with IS 456:2000.
Outcome2	To identify and apply the applicable industry design codes relevant to the design of RC Retaining walls.
Outcome3	To analyze and design of RC water Tanks.
Outcome4	To design and analysis of RC Bunker & Silo.
Outcome5	To design and analysis of RC bridges.

SUBJECT/CODE : INTEGRATED WASTE MANAGEMENT / CE703 C

Course Objective:	To Aware about the problems associated with Municipal solid waste(MSW) and their effective management
	To understand the components of Integrated solid waste management system
Course Outcome:	Students will be able to-
Outcome1	Review the components of solid waste management system as per need of particular locality, town or town.
Outcome2	Be aware of the significance of recycling, reuse and reduction and recovery of solid wastes.
Outcome3	Develop an insight into the collection, transfer, and transport of municipal solid waste.
Outcome4	Understand the design and operation of a municipal solid waste composting and landfilling.
Outcome5	Understand the importance and operation of a resource recovery facilities like waste-to-energy Technologies-Biochemical and thermochemical.





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SEMESTER -V

SUBJECT/CODE : FLUID MECHANICS I/CE501

Course Objective: To give fundamental knowledge of fluid, its properties and behavior under various conditions of internal and external flows.

Course Outcome: Students will be able to-

- Outcome1** Student are able to understand the fluid characteristics and their application in different material manufacturing industry
- Outcome2** Student are able to measure the pressures at various conditions with different types of pressure measuring devices
- Outcome3** Students are able to calculate the discharges of fluid
- Outcome4** Student are able to calculate the force acting on submerged bodies
- Outcome5** Pipe flow problems can be understood

SUBJECT/CODE : TRANS PORTATION ENGG II/ CE502

Course Objective: Understand the principles and practices of transportation engineering and urban transportation planning

Course Outcome: Students will be able to-

- Outcome1** On successful completion of the course, the students shall be able to understand the basic concept about Highway Engineering
- Outcome2** To understand the principles of Highway geometrics design as per IRC standards
- Outcome3** Students are able to understand the Traffic engineering & different types of traffic control device.
- Outcome4** Understanding of Types of pavements & Materials required for highway construction
- Outcome5** In Airport Engineering students will get knowledge of Airport planning, layout and runway and taxiway components

SUBJECT/CODE : STRUCTURAL ANALYSIS II/ CE503 (B)

Course Objective: To understand the concept of determinate and indeterminate structures, analyses of determinate and indeterminate structures.

Course Outcome: Students will be able to-

- Outcome1** The student will have the knowledge on advanced methods of analysis of structures like kanis method, Moment distribution method, Slope and deflection method
- Outcome2** Students are able to do the analysis of beam by using advance method of analysis
- Outcome3** Students are able to do analysis of portal frame.
- Outcome4** Understanding of advanced methods of analysis of structures like flexibility and stiffness method

SUBJECT/CODE : REMOTE SENSING & GIS / CE504 (c)

Course Objective: This course aims to introduce students on concept of Remote Sensing (RS), overview of RS image processing and its' applications.

This course aims at introducing concept, principles and applications of Geographic Information Systems (GIS). Course also aims to develop the skill of using software and other tools of GIS in students.

Course Outcome: Students will be able to-

- Outcome1** Student are able to understand the Basic concept of Remote sensing, Data and Information
- Outcome2** Students are able to understand the Remote Sensing Platforms and Sensors
- Outcome3** Students are able to understand Introduction to GIS & components of a GI
- Outcome4** Integrated Applications of Remote sensing and GIS can be understood





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Course Objective & Course Outcome

SEMESTER -III

SUBJECT/CODE : MIII/ BT301

Course Objective: The objective of this course is to fulfill the needs of engineers to understand applications of Numerical Analysis, Transform Calculus and Statistical techniques in order to acquire mathematical knowledge and to solving wide range of practical problems appearing in different sections of science and engineering

Course Outcome: Students will be able to-

Outcome1 Student will demonstrate basic knowledge of L.D.E., Vector, P.D.E.,F.T.& Probability

Outcome2 Student will show the understanding of impact of Engineering Mathematics in Civil.

Outcome3 Student will demonstrate their understanding of mathematical ideas from multiple perspectives, such as by (a) using the internal connections between geometry, algebra, and numerical computation, (b) applying the connections between theory and applications, or (c) Distinguishing between a formal proof and a less formal arguments and understanding the different role they play in mathematics.

SUBJECT/CODE : CONSTRUCTION MATERIAL/ CE302

Course Objective: To know the various latest and modern construction materials, properties and their uses

Course Outcome: Students will be able to-

Outcome1 Students are able to understand the property , use , advantage and disadvantage of different material used in construction

Outcome2 After completion of this subject student will be familiar with different ingredients of concrete.

Outcome3 Student will be familiar with Manufacturing, types, selection & uses of Bricks.

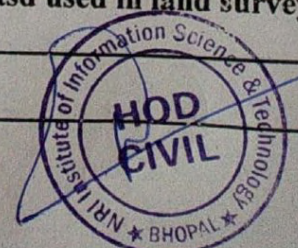
Outcome4 The properties & uses of aluminum & steel can be understood.

Outcome5 Student will be able to understand uses & properties of Asphalt, Tar & Bitumen.

SUBJECT/CODE : SURVEYING/ CE303

Course Objective: Have the ability to apply knowledge of mathematics, science and engineering to understand the measurement techniques and equipments used in land surveying.

Course Outcome: Students will be able to-



Outcome1	The students are able to understand the use of different surveying instruments and their use
Outcome2	Students are able to calculate compute the area and earthwork for different works by using surveying instruments.
Outcome3	Students are able to do the surveying of different civil engineering projects
Outcome4	Students are able to do trigonometric and Geodetic Survey
Outcome5	Students are able to understand the hydrographic survey

SUBJECT/CODE : BUILDING PLANNING AND ARCHITECTURE/ CE304

Course Objective:	To understand the concept of building planning and architecture. To understand the various building codes to be followed while planning a building. To have the knowledge of various building
Course Outcome:	Students will be able to-
Outcome1	After completion of this students will able to understand basic principles of building design and planning.
Outcome2	They will explore building drawing as a way of discovering and developing ideas for designing residential, commercial and public buildings.
Outcome3	The student develops basic drawing skills; create multilayer architectural and working drawing drawings.
Outcome4	Basic Concepts of Architecture will be developed
Outcome5	Use of Vaastu Shastra in Civil Engineering can be understood

SUBJECT/CODE : STRENGTH OF MATERIAL/ CE305

Course Objective:	To give an ability to apply the knowledge of strength of materials on engineering applications and design problems
Course Outcome:	Students will be able to-
Outcome1	Students are able to understand the behavior of material under different loading
Outcome2	Student are able to understand and calculate the different type of stress like, simple stress, shear stress, direct stress and bending stress in the material
Outcome3	Students are students are able to understand and calculate the shear force and bending moment for beam of different loading
Outcome4	Students are able to calculate the deflection of beam for different loading
Outcome5	Torsion & Unsymmetrical Bending in Civil Engineering can be understood

