



NIIST BHOPAL

NRI INSTITUTE OF INFORMATION SCI
TECHNOLOGY
DEPARTMENT NAME: CIVIL ENG

BRANCH

CIVIL

SESSION

JAN-JUNE
2015

Course Objective & Course Outcome

SEMESTER -VIII

SUBJECT/CODE : GEO. TECHNICAL ENGG.-II (CE-801)

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 : CONSTRUCTION PLANNING & MANAGEMENT (CE-802)

Course Objective:

To make them understand the feasibility analysis in Project Management and network analysis tools for cost and time estimation

Course Outcome:

Students will be able to-

Outcome1

Understand project characteristics and various stages of a project

Outcome2

Understand the conceptual clarity about project organization and feasibility analyses

Outcome3

Analyze the learning and understand techniques for Project planning, scheduling and Execution Control.

Outcome4

Apply the risk management plan and analyse the role of stakeholders.

Outcome5

Understand the contract management, Project Procurement, Service level Agreements and productivity.

SUBJECT/CODE : ADVANCED STRUCTURAL DESIGN-II (STEEL)

Course Objective:

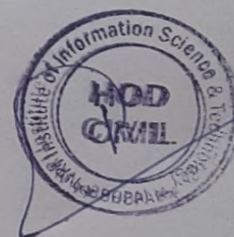
The objectives of this are to learn the behavior and design of structural steel components (members and connections in two - dimensional (2D) truss and frame structures) and to gain an educational and comprehensive experience in the design of simple steel structures.

Course Outcome:

Students will be able to-



Outcome1	Identify the different failure modes of steel tension and compression members and beams, and compute their design strengths
Outcome2	Identify the different failure modes of bolted and welded connections, and determine their design strengths
Outcome3	Select the most suitable section shape and size for tension and compression members and beams according to specific design criteria.
SUBJECT/CODE : PAVEMENT DESIGN (CE-8042)	
Course Objective:	To design the flexible and rigid pavements using different Empirical, semi-empirical and theoretical approaches
Course Outcome:	Students will be able to-
Outcome1	Students will identify suitable type of pavement.
Outcome2	Students understood Behaviour of structural components of Flexible pavement.
Outcome3	Student will know the design methods of flexible and rigid pavement
Outcome4	Students will understand the maintenance & repair of pavement





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Course Objective & Course Outcome

SEMESTER -VI

SUBJECT/CODE : STRUCTURAL ANALYSIS-II (CE-601)

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 : WATER RESOURCES & IRRIGATION ENGINEERING (CE-602)

Course Objective:

To study occurrence movement and distribution of water that is a prime resource for development of a civilization..

Course Outcome:

Students will be able to-

Outcome1

To equip the students with capabilities required for identifying, formulating and management of water resource related issues/problems.

Outcome2

To impart training to the students to prepare them for conducting high value research on water resources and other related issues and also to pursue lifelong learning.

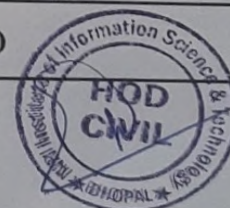
Outcome3

To introduce the students to the water related problem at international, national and regional level so that they get exposure to the burning issues.

Outcome4

To impart training to the students to gain capabilities for conducting joint collaborating works.

SUBJECT/CODE : ENVIRONMENTAL ENGINEERING - I (CE-603)



Course Objective:	The ability to apply the fundamental knowledge of science and engineering to assess environmental and health risk
Course Outcome:	Students will be able to-
Outcome1	To understand the Plan and design water supply systems for a rural/urban area , Use population forecasting methods.
Outcome2	To Design various water treatment units and plan their operations on the basis of raw water quality and water demand.
Outcome3	Apply knowledge of advanced water treatment processes for individual water purification
Outcome4	Students understood Sewage quantity and quality for better treatment so as to reduce scarcity by recycling waste water
Outcome5	Students understood industrial waste water quantity and quality for achieving better sanitation in society

SUBJECT/CODE : GEOTECH ENGINEERING-I (CE-604)

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 : STRUCTURAL DESIGN & DRAWING-II (STEEL) (CE-605)

Course Objective:	The objectives of this are to learn the behavior and design of structural steel components (members and connections in two - dimensional (2D) truss and frame structures) and to gain an educational and comprehensive experience in the design of simple steel structures.
Course Outcome:	Students will be able to-
Outcome1	Identify the different failure modes of steel tension and compression members and beams, and compute their design strengths.
Outcome2	Identify the different failure modes of bolted and welded connections, and determine their design strengths.
Outcome3	Select the most suitable section shape and size for tension and compression members and beams according to specific design criteria.





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Course Objective & Course Outcome

SEMESTER -IV

SUBJECT/CODE : MATHEMATICS III (BE-401)

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 : CONCRETE TECHNOLOGY (CE-402)

Course Objective:

The course relates to the fundamentals related to concrete and concrete material, besides dealing with masonry, reinforcement, etc

Course Outcome:

Students will be able to-

- | | |
|----------|--|
| Outcome1 | The knowledge of what concrete is, how it is formed |
| Outcome2 | what materials are involved and properties and requirements of each concrete ingredient. |

SUBJECT/CODE : SURVEYING (CE-403)

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 uses |
| 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 : CONSTRUCTION MATERIALS & TECHNIQUES (CE-404)	
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.
SUBJECT/CODE : FLUID MECHANICS (CE-405)	
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

