



Priyadarshini Bhagwati College of Engineering
An Autonomous Institute Affiliated to RTM Nagpur University, Nagpur
Scheme of Teaching & Examination
Third Semester B. Tech Program



Scheme: BTECH/CE/2025-26

Third Semester

Sr. No.	Type of Course	Credits as per Category	Course Code	Course Title	Teaching Scheme (Clock Hours/ Week)			Credits	Maximum Marks			Minimum Marks			End Semester Exam Duration (Hrs)
					L	T	P		Continuous Evaluation	End Semester Exam	Total Marks	Continuous Evaluation	End Semester Exam	Total Marks	
1	PCC	8	CE301T	Strength of Material	3	0	0	3	40	60	100	---	15	45	3
2			CE301P	Strength of Material Lab	0	0	2	1	25	25	50	---	---	25	---
3			CE302T	Construction Material	3	0	0	3	40	60	100	---	15	45	3
4			CE302P	Construction Material lab	0	0	2	1	25	25	50	---	---	25	---
5	MDM	2	CSE / AI / ETC / EE / 303T	Branch wise Course (CSE / AI / ETC / EE)	2	0	0	2	20	30	50	---	8	23	2
6	OE	4	CSE/AI/ETC/EE/CE304T	Open Elective - I (Refer OE Basket)	3	0	0	3	40	60	100	---	15	45	3
7			CSE/AI/ETC/EE/CE304P	Open Elective - I Lab (Refer OE Basket)	0	0	2	1	25	25	50	---	---	25	---
8	HSSM Entrepreneurship / Economics / Management courses	4	HUT305T	Engineering Economics	2	0	0	2	20	30	50	---	8	23	2
9	HSSM (VEC)		HUT306T	Environmental Science	2	0	0	2	20	30	50	---	8	23	2
10	CEP	2	CE307P	Community Engineering Project / Field Project (FP)	0	0	4	2	50	50	100	---	---	50	---
Total =					15	0	10	20	305	395	700				

NOTE: - 1. Refer MDM Courses - CSE / AI / ETC / EE / 303T

Abbreviations: -

PCC - Programme Core Course, MDM - Multidisciplinary Minor, OE - Open Elective other than program, HSSM - Humanities Social Science and Management, VEC - Value Education Course, CEP - Community Engineering Project / Field Project (FP), MNC - Mandatory Course

Multidisciplinary Minor			
Sr. No.	Category	Course Code	Course Name
1	MDM	CE303T	Introduction to Civil Engineering

Open Elective - I			
Sr. No.	Category	Course Code	Course Name
1	OE	CE304T	Construction Material Testing & Evaluation
2	OE	CE304P	Construction Material Testing & Evaluation Lab



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Harpur Nagar, Umred Road, Nagpur- 440024



Department of Civil Engineering

Multidisciplinary Minor

List of Courses

Sr. No.	Semester	Course Code	Course Name	Marks	Credits
1	3 rd	CE303T	Introduction to Civil Engineering	50	2
2	4 th	CE404T	Water Purification and Supply	50	2
3	5 th	CE505T	Building Construction and Elementary Building Drawing	100	3
4	5 th	CE505P	Building Construction and Elementary Building Drawing Lab	50	1
5	6 th	CE606T	Property Acquisition and Legal Aspects	50	2
6	7 th	CE703T	Advanced Building Material	50	2
7	8 th	CE805T	Estimating and Costing	50	2
Total =				400	14

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Department of Civil Engineering

Open Elective

List of Courses

Sr. No	Semester	Course Code	Course Name	Marks	Credits
1	3 rd	CE304T	Construction Material Testing & Evaluation	100	3
2	3 rd	CE304P	Construction Material Testing & Evaluation	50	1
3	4 th	CE405T	Environmental Engineering	50	2
			Total =	200	06

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DEPARTMENT OF CIVIL ENGINEERING
SYLLABUS OF SECOND YEAR BACHELOR OF TECHNOLOGY,
SEMESTER III

COURSE: - STRENGTH OF MATERIAL

COURSE CODE: CE301T

Hours/ Week	Credits	Duration of End Sem. Exam	Continuous Evaluation	End Sem. Exam	Total Marks
Th-3	3	3 Hrs	40	60	100

Course Objectives:

1.	To determine the various mechanical properties of the materials.
2.	To determine the shear force and bending moment at a section for different condition.
3.	To facilitate the concept of bending and its theoretical analysis in a beam to determine the bending and shear stress in a given beam.
4.	To develop slope and deflection equations for beams subjected to various loads.
5.	To determine the torsion in circular section, direct and bending stresses.

Course Outcomes:

After completion of the course, the student will be able to

CO1	Explain the basic concept and mechanical properties of materials.
CO2	Calculate and draw Shear Force diagram and Bending Moment diagram and their relation.
CO3	Formulate the bending and shear stresses equations and able to draw bending and shear stress diagram.
CO4	Formulate slope and deflection equations for beams subjected to various loads by macaulay's method.
CO5	Analyze and evaluate the torsion in circular section, direct and bending stresses.

SYLLABUS:

UNIT I: STRESS AND STRAIN	(8 Hours) (12 Marks)
Concept of stress and strain, stress strain diagrams and their characteristics for mild steel and TOR steel, stresses and strains in simple, compound and composite bars in uniaxial tension and compression, temperature stresses in simple restrained composite bar, elastic constants and relation between them.	
UNIT II: SHEAR FORCE AND BENDING MOMENT	(7 Hours) (12 Marks)
Types of beams, axial force, shear force and bending moment, relation between load intensity, Shear Force and Bending Moment, Shear Force and Bending Moment diagrams of simply supported and cantilever beams.	
UNIT III: STRESS IN BEAMS	(7 Hours) (12 Marks)
Bending stresses in beams, assumptions and derivation of simple bending theory, relation between bending moment, bending stress and curvature of homogeneous and composite beams, shear stresses in simple beams, shear flow and shear stress distribution, shear stress in composite beams, combined effect of bending moment and axial force, introduction to principal stresses, maximum shear stresses.	
UNIT IV: DEFLECTION OF BEAMS	(7 Hours) (12 Marks)
Differential equations of the deflection curve, bending of uniformly loaded beams, deflection of simply supported beams loaded concentrated beam, introduction to macauley's method, deflection of a simply supported and cantilever beam by the macauley's method, method of superposition, the deflection of beams with overhangs.	
UNIT V: TORSION, DIRECT AND BENDING STRESS	(7 Hours) (12 Marks)
Direct and bending stress, introduction to torsional rigidity, assumptions and derivation of relations between torsional moment, shear stress and angle of twist, torsion in thin-walled hollow section, closely coiled helical springs.	

List of Books:

Text Books:

1. Strength of materials, S. Ramamrutham, 17, Dhanpat Rai Publication.
2. Strength of materials, R. S. Khurmi, S. Chand Publication.
3. Strength of materials, Subramanian R., 2, CBS Publishers and Distributors.

Reference Books:

1. Strength of Materials, F. L. Singer, Haper and Row.
2. Strength of material, R. K. Bansal, Laxmi Publication.



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DEPARTMENT OF CIVIL ENGINEERING
SYLLABUS OF SECOND YEAR BACHELOR OF TECHNOLOGY,
SEMESTER III

COURSE :- STRENGTH OF MATERIAL LAB

COURSE CODE: CE301P

Hours/ Week	Credits	Continuous Evaluation	End Sem. Exam	Total Marks
2 Hrs	1	25	25	50

- 1) The practicals are based on theory subject of Strength of Material
- 2) Minimum 08 practicals from list of Experiments
- 3) Any one practical may be performed using virtual lab.

List of Experiments

- To study the universal testing machine.
- To determine the tensile strength of steel specimen.
- To determine flexural strength of timber beam.
- To determine modulus of rigidity of m.s. Bar by torsion test.
- To determine impact value of metal by Charpy impact test or Izod impact test.
- To determine Rockwell hardness number for m.s. And aluminium bar.
- To determine the stiffness of spring and modulus of rigidity.
- To determine the compressive strength of specimen.
- To perform shear test on different metals.
- To perform bending test on wooden beam and find its flexural rigidity.
- To study various types of strain gauge apparatus.
- To study standard torsion test on metals.



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DEPARTMENT OF CIVIL ENGINEERING
SYLLABUS OF SECOND YEAR BACHELOR OF TECHNOLOGY,
SEMESTER III

COURSE :- CONSTRUCTION MATERIAL

COURSE CODE: CE302T

Hours/ Week	Credits	Duration of End Sem. Exam	Continuous Evaluation	End Sem. Exam	Total Marks
Th-3	3	3 Hrs	40	60	100

Course Objectives:

1.	To know the properties of cement and aggregates.
2.	To understand the properties of concrete in plastic and hardened stage.
3.	To discover concrete mix design procedure for different exposure conditions and required purpose.
4.	To know bitumen and stones with its applications.
5.	To discriminate the various types of steel and timber in civil construction.

Course Outcomes:

After completion of the course, the student will be able to

CO1	Tell the properties of ingredients of concrete.
CO2	Assess the properties of concrete in fresh and hardened state required on construction fields.
CO3	Design the concrete mix for its required properties.
CO4	Select suitable bitumen stone for a particular application.
CO5	Choose the suitable type of steel and timber as per their applications on site.

SYLLABUS:

UNIT I: CEMENT AND AGGREGATES	(8 Hours) (12 Marks)
<p>Cement - Chemical composition of cement and role of each in cement, hydration of cement, heat of hydration, testing of cement as per Indian standard - Normal consistency, Setting time test, Soundness test.</p> <p>Aggregates - mechanical properties, moisture content, water absorption, bulking of sand, Impact and Crushing test, various grading of C.A. and F.A., grading requirements.</p>	
UNIT II: FRESH AND HARDENED CONCRETE	(7 Hours) (12 Marks)
<p>Fresh Concrete: Historical background, general note on strength mechanism of concrete, Workability – measurement tests on workability (Compaction factor test), placing of concrete, finishing of concrete, Importance of W/C ratio, Segregation and bleeding- Types and Factors affecting segregation and bleeding.</p> <p>Hardened Concrete: Compressive and tensile strength test- Cube and Cylinder Test, factors affecting strength of concrete.</p>	
UNIT III: ADMIXTURES AND MIX DESIGN	(7 Hours) (12 Marks)
<p>Admixtures - Additives and admixtures, types, necessity and benefit</p> <p>Mineral admixture - Fly ash, silica fume, blast furnace slag, and other pozzolanic materials</p> <p>Chemical admixtures - Accelerator, retarder, water reducing elements, Introduction of plasticizer and super-plasticizer</p> <p>Concrete Mix Design: Principles of mix proportioning, factors affecting mix design, methods of mix design, acceptance criteria, IS method of concrete mix design for different grades of concrete</p>	
UNIT IV: BITUMEN AND STONES	(7 Hours) (12 Marks)
<p>Bitumen: Forms, types, functions, Tests on bituminous material - Ductility test, Flash and fire point test, penetration test, Use of Bitumen, BIS codes for bitumen.</p> <p>Stones: Classification of rocks- Geological, Physical and Chemical, Sources of stones, Uses of stones, Tests for stones- Acid test, Crushing, Hardness, Water absorption test, Qualities of Building Stones, BIS codes for building stones.</p>	
UNIT V: STEEL AND TIMBER	(7 Hours) (12 Marks)
<p>Steel: Types of Steel, Uses of Steel as construction material, Properties of mild steel and hard steel, Market forms of steel- Angle section, channel section, sheets, T-I sections, Round, square flat bars, TMT bars, etc.</p> <p>Timber: Types of timber, Preservation of timber, Fire resistance of timber, Qualities of good timber, storage of timber, Market forms of timber, Advantages of timber construction, Indian Timber trees.</p>	

Text Books:

1. Concrete Technology by M S Shetty, 7th edition, S. Chand Publication, New Delhi.
Concrete Technology by M S Shetty and A K Jain, 8th edition, S. Chand Publication, New Delhi.
2. Properties of Concrete by A M Nivelles, 5th edition, Pearson Education.
3. Concrete Technology by A M Nivelles, 17th edition, Pearson Education.
4. Building Materials by S K Duggal, 4th edition, New Age International Publications.
5. Engineering materials by Rangwala, 43rd edition, Charotar publication

Reference Book:

1. Concrete Technology by M. L. Gambhir, 5th edition, Tata McGrawHill.
2. Concrete Technology by P. Kumar Mehta, 4th edition, Tata McGrawHill.
3. Engineering Materials by S. C. Rangwala, 6th edition, Charotar Publication.
4. Building Materials, Testing and Sustainability by N. Subramaniam, Oxford University Press, New Delhi.
5. Concrete Technology by O. V. Sapate, 1st edition, Technoscan.

IS Codes:

1. 1 IS 269:2013 (Specification for ordinary Portland cement, 33 grade)
2. 2 IS 4031:1996 (Method of physical test for hydraulic cement)
3. 3 IS 383:1970 (Specification for coarse and fine aggregates from natural sources for concrete)
4. 4 IS 2386 (Part 1):1963 (Method of test for aggregates of concrete)
5. 5 IS 650 (1991) (Specification of standard sand)
6. 6 IS 456:2000-Reaffirmed in 2021 (Code for practice for plain and reinforced concrete)
7. 7 IS 516:1959 (Method of tests for strength of concrete)
8. 8 IS 5816:1959 (Splitting tensile strength of concrete)
9. 9 IS 10262:2009 (Concrete mix proportioning: Guidelines)
10. 10 IS 3812:2003 (Pulverized fuel ash - specifications)
11. 11 IS 73:2013 Paving Bitumen
12. 12 IS 1121-1974 (Methods of test for determination of strength properties of natural building stones)
13. 13 IS 3629:1986 (Specification for structural timber in building)
14. 14 IS 800:2007 (General construction in steel - code of practice)

Important websites:

<http://www.nptel.iitm.ac.in>

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DEPARTMENT OF CIVIL ENGINEERING
SYLLABUS OF SECOND YEAR BACHELOR OF TECHNOLOGY,
SEMESTER III

COURSE : CONSTRUCTION MATERIAL LAB

COURSE CODE: CE302P

Hours/ Week	Credits	Continuous Evaluation	End Sem. Exam	Total Marks
2 Hrs	1	25	25	50

- 1) The practicals are based on theory subject of Solid Mechanics
- 2) Minimum 08 practicals from list of Experiments
- 3) Any one practical may be performed using virtual lab.

List of Experiments

- Tests on cement (Any Three)
Normal consistency, Initial and Final Setting times, Soundness, Compressive strength test
- Tests on fine aggregate (Any One)
Grain size distribution (Sieve Analysis), Bulking test, Absorption test, Moisture content
- Tests on coarse aggregate (Any One)
Grain size distribution (Sieve Analysis), Absorption test, Moisture content, Specific gravity test
- Workability test on concrete by using IS code method (Any One)
Compaction factor test, Flow table test, Vee-Bee Consistometer
- Concrete mix design
- Tests on bitumen (Any One)
Ductility test, Flash and fire point test, penetration test
- Compressive strength of stone.
- Flexural strength test of concrete beam.
- One field visit / Site visit with report submission (Compulsory)



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DEPARTMENT OF CIVIL ENGINEERING
SYLLABUS OF SECOND YEAR BACHELOR OF TECHNOLOGY
MULTIDISCIPLINARY MINOR SUBJECT AS PER NEP
SEMESTER III

COURSE:-Introduction to Civil Engineering

COURSE CODE: CE303T

Hours/ Week	Credits	Duration of End Sem Exam	Continuous Evaluation	End Sem Exam	Total Marks
TH- 2Hrs.	2	02 Hrs.	20	30	50

Course Objectives:

1.	To explore the fundamental role of Civil Engineering in shaping societies, economies, and the environment.
2.	To introduce various fields of civil engineering
3.	To understand the infrastructure development and its various components, challenges, and opportunities

Course Outcomes:

After completion of the course, the student will be able to

CO1	Understand the Application of Civil Engineering in the development of the country.
CO2	Understand the various disciplines of civil engineering
CO3	Apply The knowledge, skills, and awareness necessary to contribute effectively to planning and sustainable infrastructure projects in a rapidly evolving world.

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SYLLABUS

Unit I: Civil Engineering - Overview

(8 Hours) 10 Marks

Understanding the importance of Civil Engineering in shaping and impacting the World, The ancient and modern Marvels and Wonders in the field of Civil Engineering, Future vision for Civil Engineering.

Relevance of Civil Engineering in the overall infrastructural development of the country.

Unit – II: Discipline's in Civil engineering

(8 Hours) 10 Marks

Brief introduction to major disciplines of Civil Engineering like Transportation Engineering, Structural Engineering, Geo- technical Engineering, Water Resources Engineering and Environmental Engineering, Surveying, Hydraulics, Water Resource Engineering.

Unit – III: Infrastructural Projects

(8 Hours) 10 Marks

Infrastructure - Mega cities, Smart Cities, futuristic visions; Transportation ,Futuristic systems (ex, Hyper Loop), Energy generation (Hydro, Solar (Photovoltaic, Solar Chimney), Wind, Wave, Tidal, Geothermal, Thermal energy, Water provisioning, Telecommunication needs (towers, above-ground and underground cabling), Awareness of various Codes & Standards governing Infrastructure development, Innovations and methodologies for ensuring Sustainability Techniques for reduction of Green House Gas emissions in various aspects of Civil Engineering Projects.

Text Books:

1. Basic Civil Engineering: By Dr. B. C. Punmia, Ashok Kumar Jain, Arun Kumar Jain
2. Gopi S, Basic Civil Engineering, Pearson Publishers

Reference Book:

3. Essentials of Civil Engineering, Dalal, K R, Charotar Publishing house.
4. Building Construction: By Sushil Kumar





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DEPARTMENT OF CIVIL ENGINEERING
SYLLABUS OF THIRD YEAR BACHELOR OF TECHNOLOGY
SEMESTER III
OPEN ELECTIVE-I

COURSE:- CONSTRUCTION MATERIAL TESTING AND EVALUATION

COURSE CODE: CE304T

Hours/ Week	Credits	Duration of End Sem Exam	Continuous Evaluation	End Sem Exam	Total Marks
TH- 3 Hrs.	3	3 Hrs.	40	60	100

Course Objectives:

1.	The properties and importance of various constituent materials of concrete used in construction
2.	The mechanical behaviour of engineering materials under compressive and tensile loads
3.	The fundamentals of fracture mechanics and identify initiation and propagation of crack around stress-strain fields.
4.	The standard testing procedures and assess engineering properties of construction materials
5.	The main goal of this course is to provide students with all information concerning principle, way of measurement, as well as practical application of mechanical characteristics

Course Outcomes:

After completion of the course, the student will be able to

CO1	Evaluate the role of materials in Civil Engineering
CO2	Know the mechanical behaviour and properties of steel and concrete by standard testing procedures for identifying their performance
CO3	Explain special materials, composite materials and use of new techniques in constructions for satisfying the future needs of industry.
CO4	Exposure to a variety of established material testing procedures/techniques and the relevant codes of practice
CO5	Evaluate and write a technical laboratory report.

Scheme:- BTECH/CE/NEP-25/R0

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OPEN ELECTIVE

SYLLABUS

Unit I Introduction To Civil Engineering Materials	(8 Hours) (12 Marks)
Introduction and uses of cement, sand, aggregates concrete, mortar and grouts, masonry mortars, rendering, cementations grouts RCC, clay bricks, calcium silicate bricks, concrete blocks., rubbles, steel, mechanical properties of steel, different applications Floor and roofing tiles, slates, timber, strength of timber, engineered wood products metals, glass for glazing, glass fibres, glass wool Water proofing agents: any five water proofing agents, difference between wetting agents and water proof agent	
Unit – II: Basic Properties of Materials	(7 Hours) (12 Marks)
Importance of materials in civil engineering construction, types of materials such as ceramics, concrete, composites, optical /electronics materials, glass, metals, nano-materials, polymers and plastics, wood and other materials, comparison of strengths of various materials. Some basic properties of materials such as temperature, energy, specific heat, thermal conductivity, coefficient of thermal expansion, comparison for environmental impact, health and safety.	
Unit – III: Special Materials	(7 Hours) (12 Marks)
Composite Materials: RCC, FRC, AAC (Autoclaved aerated concrete) blocks, WPC (Wood-plastic composites) Material, Cera sheets, 3D wall WPC panels, polymer based materials, steel/concrete composite bridge decks, fibre reinforced plastics structural insulated panels. New Techniques in Constructions-Introduction, 3D printing, photo catalytic admixture, self-healing concrete, Bio-materials, zero cement concrete ,hemp lime, wood-glass epoxy composites, bamboo.	
Unit – IV: Testing Procedures of Materials	(7 Hours) (12 Marks)
Material Testing, Machines and Equipment Requirements---Necessity of material testing, various testing methods, destructive tests, classification of destructive tests---static, impact and cyclic testing, nondestructive testing- its classification ,visual inspection, penetration test, ultrasonic test.	

Scheme:- BTECH/CE/NEP-25/RO

OPEN ELECTIVE



Testing Procedures for bricks, reinforcing steel, fine aggregates, coarse aggregates.

Documenting the experimental program, including the test procedures, collected data, method of interpretation and final results.

Unit – V: Testing and Evaluation Procedures of Materials (7 Hours) (12 Marks)

Quality control- Use of test data/ testing reports in the material selection for various civil engineering projects /construction, Sampling, Acceptance criterion,

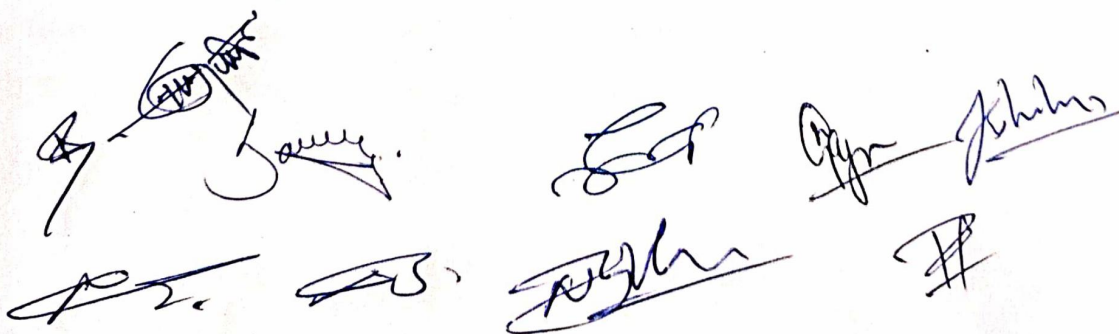
Code of practice and guidelines in this regards for Cements; Aggregates; Concrete (plain and reinforced); Soils; Bitumen and asphaltic materials; Timbers; Glass and Plastics; Structural Steel.

Text Books:

1. N. Subramania, Building Materials, Testing, and Sustainability, Oxford University Press, New Delhi
2. Highway Materials and Pavement Testing, Khanna, S.K., Justo, C.E.G and Veeraragavan, Nem Chand & Bros,
3. Mechanical Behaviour of Materials E.N. Dowling (1993) Prentice Hall, International Edition

Reference Book:

1. Building Construction Handbook Chudley, R., Greeno (2006), R. Butterworth Heinemann

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SYLLABUS OF THIRD YEAR BACHELOR OF TECHNOLOGY
SEMESTER III
(OPEN ELECTIVE-I)

COURSE: CONSTRUCTION MATERIAL TESTING AND EVALUATION LAB

COURSE CODE: CE304P

Hours/ Week	Credits	Duration of End Sem Exam	Continuous Evaluation	End Sem Exam	Total Marks
PR- 2 Hrs.	1	-	25	25	50

The Practicals are based on Theory course of CMTE and CO's.

Perform any eight practicals

1. To determine the Fineness of cement
2. To determine the Normal consistency, initial setting time and final setting time of cement by Vicat's Apparatus.
3. To perform the Soundness test on cement by Le-chatelier's apparatus.
4. To find the Specific gravity of a given sample of aggregate by Pycnometer apparatus.
5. To determine the impact value of given sample of aggregate.
6. To determine moisture content of given sample of aggregate.
7. To determine the Workability of concrete by Slump Cone apparatus.
8. To determine the Compressive strength of concrete cubes of Nominal mixes.
9. To study Non-Destructive testing - Rebound Hammer method
10. To study Non-Destructive testing - Ultrasonic Pulse Velocity Test method

Scheme:- BTECH/CE/NEP-25/RO

OPEN ELECTIVE



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SEMESTER III

COURSE: COMMUNITY ENGINEERING PROJECT / FIELD PROJECT

COURSE CODE: CE307P

Hours/ Week	Credits	Duration of End Sem Exam	Continuous Evaluation	End Sem Exam	Total Marks
4 Hrs.	2	--	50	50	100

Course Objectives:

1.	The objective of the course is to give awareness of the practical application of various theoretical concepts.
2.	The objective of the course is to enhance managerial skills for solving social issues using engineering solutions.

Course Outcomes:

After completion of the course, the student will be able to

CO1	To apply theoretical knowledge on a practical site.
CO2	Understand organizational skills & professional practices.
CO3	Interpret the communication skills of organizational members with each other.

Distribution of Internal Marks:

SN	NAME OF ACTIVITY	EXPECTED WORK	ALLOTTED MARKS
1	Seminar-1	Title finalization and approval of topic	20
2	Student Diary	Detailed interaction report of student weekly duly signed by guide/ co-guide	10
3	Seminar-2	Pre submission of field project report	20
TOTAL			50

Distribution of External Marks:

SN	NAME OF ACTIVITY	EXPECTED WORK	ALLOTTED MARKS
1	Presentation	Student group wise presentation along with report and then oral exam	20
2	Viva voice		30
TOTAL			50

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SYLLABUS

The following guidelines may be used for the mini-project allotment.

The knowledge and concepts related to engineering acquired by the students must be implemented in the form of some practical social work.

1. The institute will care for the research and topic interest of each student, and it offers flexibility to the student for formation of groups according to their choice of particular interest. However, it has advised them to follow the limitation of group members (five to six students per group). The in-charge teacher can be guided.
2. The Project Coordinator should prepare the merit list of the project groups as per the policy of the Institute.
3. In the due course of time, students will carry out a literature review about their area of interest and identify the scope of work by deciding the topic in consultation with the coordinator. The field projects should be industry oriented, application, product, research, review, etc. The title of the field project should be basis on the feasibility study of the project.
4. The project may have an analytical approach in respective discipline areas or interdisciplinary domain.
5. Progress seminars are conducted wherein the students will present their progress of the work before the project review committee. The committee will evaluate their work with respect to the following rubrics:
 - A. Understanding the background and topic/Content of the progress report or seminar
 - B. Knowledge about existing system/Literature Review
 - C. Technical design and findings of the system/technical content
 - D. Presentation skills
 - E. Viva voice (Individual group)

Contents of Presentation/reports at the time of external examinations (maybe used for Internal Examinations also) shall have:

- A. Index
- B. Introduction
- C. Objectives
- D. Working model / analysis / design details etc.
- E. Conclusions (Societal benefit)
- F. References / Bibliography

Handwritten signatures and initials at the bottom of the page, including a large signature on the left, several smaller signatures in the middle, and initials 'P7' and 'Gpr' on the right.