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| Image result for nit meghalaya logo | **National Institute of Technology Meghalaya**An Institute of National Importance | **CURRICULUM** |
| Programme | **Bachelor of Technology in Civil Engineering** | Year of Regulation | **2020-21** |
| Department | **Department of Civil Engineering** | Semester | **IV** |
| CourseCode | Course Name | **Pre requisite** | Credit Structure | Marks Distribution |
| L | T | P | C | INT | MID | END | Total |
| **CE 272** | **Basic Civil Engineering** | **Nil** | **2** | **0** | **0** | **2** | **50** | **50** | **100** | **200** |
| CourseObjectives | **To inculcate the essentials of Civil Engineering field to the students of all branches of Engineering.** | Course Outcomes | CO1 | **To describe the role of engineer in the development of the society and explain relationship of civil engineering with other branches of engineering and technology** |
| **To provide the students an illustration of the significance of the Civil Engineering Profession in satisfying** | CO2 | **The students will be able to plan and perform building drawings**  |
|  | CO3 | **Able to perform basic surveying and related calculations** |
|  | CO4 | **To discuss types of buildings and select materials of constructions** |
|  | CO5 | **Get knowledge on various building components/finishes and other structural aspects of civil engineering.** |
|  | CO6 |  |
|  |
| No. | COs | Mapping with Program Outcomes (POs) | Mapping with PSOs |
| PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| 1 | CO1 | **0** | **1** | **0** | **0** | **0** | **0** | **3** | **0** | **1** | **0** | **0** | **1** | **0** | **0** | **1** |
| 2 | CO2 | **1** | **2** | **0** | **0** | **0** | **0** | **1** | **0** | **1** | **0** | **0** | **1** | **3** | **0** | **0** |
| 3 | CO3 | **2** | **2** | **1** | **0** | **2** | **0** | **1** | **0** | **1** | **0** | **0** | **1** | **3** | **0** | **0** |
| 4 | CO4 | **0** | **1** | **0** | **0** | **0** | **0** | **1** | **0** | **1** | **0** | **0** | **1** | **0** | **1** | **0** |
| 5 | CO5 | **0** | **1** | **0** | **0** | **0** | **0** | **1** | **0** | **1** | **0** | **0** | **1** | **0** | **1** | **0** |
| 6 | CO6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SYLLABUS |
| No. | Content | Hours | Cos |
| I | **General introduction to Civil Engineering**Introduction to types of buildings, Components of a residential building, Introduction to industrial buildings; Introduction to planning of residential buildings - Simple building plans; Introduction to the various building area terms; Setting out of a building; | **6** | **CO1, CO2** |
| II | **Surveying**Principles, Objectives, Horizontal measurements with tapes, Ranging; Levelling – Instruments, Reduction of levels; Modern surveying instruments. | **6** | **CO3** |
| III | **Building Materials**Bricks, cement blocks, Cement, Cement mortar, Steel; Building construction. | **6** | **CO4** |
| IV | **Brief Study on**Foundations, Brick masonry, Roofs, Floors, Decorative finishes, Plastering, Paints and Painting; Basic infrastructure and services – Elevators, Escalators, Ramps, Air conditioning, Sound proofing, Towers, Chimneys, Water Tanks; Intelligent buildings | **6** | **CO5** |
| Total Hours | **24** |  |
| **Essential Readings** |
| 1. Shetty, M.S., Concrete Technology (Theory & Practice), S.Chand and Co, Revised edition, 2015
 |
| 1. Gambhir, M.L., Concrete Technology, Tata McGraw Hill, fifth edition, 2013.
 |
| 1. Basak NN. “Surveying & Levelling, McGraw Hill, second edition, 2014
 |
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| **Supplementary Readings** |
| 1. R. Chudley and r. Greeno, building construction handbook, addisonwesley, longman group, England, 6th edition, 2006
 |
| 1. M. S. Mamlouk, and J. P. Zaniewski, Materials for Civil and Construction Engineers, Pearson, Prentice Hall, 2nd Edn., 2006.
 |
| 1. N N Basak, Surveying and Levelling, Mccrawhill publications.
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