BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF CIVIL ENGINEERING



LESSON PLAN

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| SUBJECT: CONSTRUCTION MANAGEMENT (TH 2) | ACCADEMIC SESSION: 2021-22 |
| FACULTY: MRS PUNYASA SEEYARAM | SEMESTER: 6TH |
|  | SEC: B |

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| H O D (Civil Engg.) |

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| **Discipline:**  **Civil Engineering** | **Semester: 6th**  **Sec:B** | | **Name of Teaching Faculty:PUNYASHA SEEYARAM** |
| **Subject:**  **CONSTRUCTION MANAGEMENT** | **No. of Days / week class allotted: 04 period per week ( MON—1 Period, TUE---1period WED---1 Period, Fri -- 1 Period )** | | **Semester From Date : 10-03-2022 To Date 10-06-2022**  **No. of Weeks: 14** |
| **Week** | **Date** | **No. of periods available** | **Topics to be covered** |
| 1st | 11/03/2022 | 1 | **1 Introduction To Construction Management:**  1.1 Aims and objectives of construction management.  1.2 Functions of construction management |
| 2nd | 14/03/2022 | 1 | 1.3 The construction team componentsowner,engineer,architect,contractor-their functions and interrelationship and jurisdiction.  1.4 Resources for construction management-men,machines,materials,money |
| 15/03/2022 | 1 | **2 Constructional Planning**  2.1 Importance of Construction Planning  2.2 Developing work breakdown structure for construction work  2.3 Construction Planning stages-Pre-tender stage, Post-tender stage |
| 16/03/2022 | 1 | 2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.  2.5 Preparation of schedules for labour materials |
| 3rd | 21/03/2022 | 1 | 2.5 machinery, finance for small works.  2.6 Limitation of Bar charts**.** |
| 22/03/2022 | 1 | 2.7 Construction scheduling by network techniques-defination of terms ,PERTand CPM techniques, advantages and disadvantages of two techniques, network analysis, estimation of time and critical path, application of PERT and CPM  techniques in sample construction works. |
| 3rd | 23/03/2022 | 1 | **3 Materials and Stores Management**  3.1 Classification of Stores-storage of stock.  3.2 Issue of materials-indent , invoice, bin card. |
| 25/03/2022 | 1 | **4 Construction Site Management**  4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments |
| 4th | 28/03/2022 | 1 | 4.2 Location of equipment, organizing labour at site.  4.3 Job lay out for different construction sites. |
| 29/03/2022 | 1 | 4.4 Principle of storing material at site.  **5 Construction Organization:**  5.1 Introduction – Characteristics, Structure, importance |
| 30/03/2022 | 1 | Monthly Class Test 1 |
| 5th | 04/04/2022 | 1 | 5.2 Organization types-line and staff, functions and their characteristics |
| 05/04/2022 | 1 | 5.3 Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task. |
| 06/04/2022 | 1 | 5.4 Leadership-necessity, styles of leadership, role of leader |
| 08/04/2022 | 1 | 5.5 Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior |
| 6th | 11/04/2022 | 1 | 5.5 mob psychology, handling of grievances, absenteeism, labour welfare.  5.6 Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts. |
| 12/04/2022 | 1 | **6 Construction Labour and Labour Management**:  6.1 Preparing Labour schedule  6.2 Essential steps for optimum labour output |
| 13/04/2022 | 1 | 6.3 Labour characteristics  6.4 Wages & their payment |
| 7TH | 18/04/2022 | 1 | 6.5 Labour incentives  6.6 Motivation- Classification of motives, different approaches to motivation. |
| 7TH | 19/04/2022 | 1 | **7 Equipment Management**  7.1 Preparing the equipment schedule |
| 20/04/2022 | 1 | 7.2 Identification of different alternative equipment. |
| 22/04/2022 | 1 | 7.3 Importance of Owning & operating costs in making  decisions for hiring & purchase of equipment |
| 8TH | 25/04/2022 | 1 | **7**.4 Inspection and testing of equipment  7.5 Equipment maintenance |
| 26/04/2022 | 1 | 8 Quality Control  8.1 Concept of quality in construction  8.2 Quality Standards- during construction |
| 27/04/2022 | 1 | Monthly Class Test 2 |
| 29/04/2022 | 1 | 8.2 after construction, destructive & non destructive methods |
| 9TH | 02/05/2022 | 1 | **9 Monitoring Progress**  9.1 Programme and progress of work  9.2 Work study |
| 04/05/2022 | 1 | **10 Safety Management In Construction**  10.1 Importance of safety  10.2 causes and effects of accidents in construction works |
| 06/05/2022 | 1 | 10.3 Safety measures in worksites for excavation, scaffolding,  formwork, fabrication and erection, demolition. |
| 10TH | 09/05/2022 | 1 | INTERNAL ASSESSMENT |
| 10/05/2022 | 1 | INTERNAL ASSESSMENT |
| 11/05/2022 | 1 | 10.4 Development of safety consciousness  10.5 Safety legislation- Workman’s compensation act, contract labour act. |
| 13/05/2022 | 1 | 11 Role of Vulnerability Atlas of India in construction projects  11.1 Introduction to Vulnerability Atlas of India, Concepts of natural hazards and  disasters and vulnerability profile of India |
| 11TH | 17/05/2022 | 1 | 11.1Definition of disaster related terms.  11.2 Earthquake hazard and vulnerability, Magnitude and intensity scales of  earthquake, seismic zones |
| 18/05/2022 | 1 | 11.2earthquake hazard maps, types of structures and damage classification, effects in housing and resistant measures. . |
| 20/05/2022 | 1 | 11.3 Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps |
| 12TH | 23/05/2022 | 1 | 11.3 storm surveys and cyclone resistant measures.  11.4 Flood hazard and vulnerability |
| 24/05/2022 | 1 | 11.4 Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction. |
| 25/05/2022 | 1 | 11.5 Landslides, Tsunamis and Thunderstorm hazards and vulnerability, |
| 27/05/2022 | 1 | Monthly Class Test 3 |
| 13TH | 31/05/2022 | 1 | 11.5 Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards. |
| 01/06/2022 | 1 | 11.6 Housing vulnerability risk tables and usage of vulnerability atlas of India,Inclusion of vulnerability atlas in Tender documents. |
| 03/06/2022 | 1 | 11.6 Continue of housing vulnerability risk |
| 14TH | 06/06/2022 | 1 | Revision |
| 07/06/2022 | 1 | Revision |
| 08/06/2022 | 1 | Previous Year Questions and Answers discussion |
| 10/06/2022 | 1 | Previous Year Questions and Answers discussion |