Domain Track Title: CONSTRUCTION PLANNING, MONITORING AND PROJECT MANAGEMENT

Track Total Credits =Theory + Practice + Project = 16 (4 - 6 - 6)

Courses Division (list all divisions):

PHASE I. (CUCP2110)- Hours	Study of Drawings and Plan	(2+1+0)	25
PHASE II. (CUCP2111)- Hours	Project Scheduling &Management	(0+2+0)	30
PHASE III. (CUCP2112)- Hours	Site Study and Study on Contract Laws	(2+1+0)	25
PHASE IV. (CUCP2113)- Hours	Concepts of Quality Control and Checking	(0+1+1)	30
PHASE V. (CUCP2114)- 25 Hours	Quantity Estimation and Equipment Management	(0+1+1)	
PHASE VI. (CUCP2115)- Hours	Site Supervision Project	(0+0+4)	54

Domain Track Objectives:

- Students will be able to work with the latest trend of the construction industry needs.
- Understand different methods of project delivery and the roles and responsibilities of all constituents involved in the design and constant process.
- Give the students experience, supervision and direction in recognizing and applying the concepts of project management and construe planning.

Domain Track Course outcomes:

- Students will plan various projects relating to advanced building technology with trust.
- Students will be churned as Construction Manager, Project Engineer. Site Supervisor and Project Consultant.
- Maintain and develop the pupils' ability to put their knowledge of theory into practice using

forms of construction.

PHASE-I STUDY OF DRAWINGS AND PLAN (2+1+0)

Inputs required completing the project

1. To ensure the student to read about the technical terms in various building drawings.
2. To give hands on practice to the students in preparing blue prints of a proposed construction.

To fulfill the requirement of the INPUTS the candidate has to learn the following steps:

TYPES OF INPUT	TYPE OF STUDY
Preparation of Site Map	Theory + Drawing Practice
Preparation of Electrical and Plumbing drawing	Theory + Drawing Practice
Preparation of Bar Bending Schedule and Carpentry drawing	Theory + Drawing Practice
Structural Detailing of building components	Theory + Drawing Practice
Preparation of Building layouts	Field Work
Report Preparation	Report
Review	Presentation

Phase II PROJECT SCHEDULING &MANAGEMENT (0+2+0)

Inputs required completing the project

1. WBS
2. Equipment Scheduling
3. Labour Scheduling
4. Material Scheduling
5. Financial Resource allocation.

To fulfill the requirement of the INPUTS the candidate has to learn the following steps:

TYPES OF INPUT	TYPE OF STUDY
Preparation of Functional Planning	Practice
Detail analysis report about the information of an equipment	Practice
Preparation of datasheet of construction labours	Practice
Preparation of materials list required for the project	Project
Scheduling the resources of the project	Project
Report Preparation	Report
Review	Presentation

PHASE III SITE STUDY AND STUDY ON CONTRACT LAWS (2+1+0)

Inputs required completing the project

- To learn about the methods of marking layouts and pre construction process.
- To study the various types of construction contracts and their legal aspects and provisions.

To fulfill the requirement of the INPUTS the candidate has to learn the following steps:

TYPES OF INPUT	TYPE OF STUDY
Marking Layouts of proposed plan.	Field work
Preparation of Site Map	Surveying Practice
Design of contract documents	Theory+ Class Room Practice
Tenders Prequalification–Bidding–Accepting–Evaluation of Tender from Technical, Contractual and Commercial Points of View.	Theory+ Class Room Practice
Legal Requirements, Insurance and Bonding, Laws Governing Sale, Purchase and Use of Urban and Rural Land–Land Revenue Codes–Tax Laws	Theory+ Class Room Practice
Assessment (Lab)	Examination

PHASE IV CONCEPTS OF QUALITY CONTROL AND CHECKING (0+1+1)

Inputs required completing the project

- To enlighten the student with the tools of total quality management process.
- To give hands on practice to the students in preparing quality assessment schedules and inspection check lists
- Carryout the field and laboratory tests for quality assessment in construction industry.

To fulfill the requirement of the INPUTS the candidate has to learn the following steps:

TYPES OF INPUT	TYPE OF STUDY
Generation of sample QC inspection Check list for Industrial building.	Practice
Generation of sample QC inspection Check list for Institutional building.	Practice
Generation of sample QC inspection Check list for Apartment building.	Practice
Generation of sample QC inspection Check list Road Structures.	Practice
Report Preparation.	Report
Review.	Presentation

PHASE V QUANTITY ESTIMATION AND EQUIPMENT MANAGEMENT (0+1+1)

Inputs required completing the project

- Identify the particular equipment to be used in the construction project they will undertake.
- Prepare plans for economic management by estimating the costs of the total construction works.
- To appraise the student with the aspects related to functioning, operation and maintenance of various construction equipment.

To fulfill the requirement of the INPUTS the candidate has to learn the following steps:

TYPES OF INPUT	TYPE OF STUDY
Planning & Selection of Equipment.	Practice (Self-Learning)
Economics of Equipment and procurement techniques.	Practice (Self-Learning)
Estimation for total construction cost.	Practice (Self-Learning)
Estimation for total labor and material cost.	Practice (Self-Learning)
Preparation of BOQ.	Estimator 2.0 (Lab)
Review	Presentation

PHASE VI SITE SUPERVISION PRACTICES (0+0+4)

Inputs required completing the project

1. To demonstrate supervision of concreting task such as form finish concrete structure, complex structure, slip form concreting and concreting in extreme weather condition.
2. Supervise, monitor and evaluate performance of subordinates at workplace.
3. To study about the processes of various stages of construction on the field.

To fulfill the requirement of the INPUTS the candidate has to learn the following steps:

TYPES OF INPUT	TYPE OF STUDY
Supervise and monitor the execution of System/shuttering Carpentry works.	Practice (Self-Learning)
Supervise and monitor the execution of concreting works.	Practice (Self-Learning)
Supervise and monitor the execution of bar bending works.	Practice (Self-Learning)
Supervise and monitor the execution of scaffolding works.	Practice (Self-Learning)
Supervise and monitor the daily labour works (DPR).	Practice (Self-Learning)
Assessment (Review)	Presentation

REPORT WRITING

Inputs required completing the project

1. Functional Planning of the project
2. Identification of Objects
3. Literature Review

4. Preparation of Flow chart for Methodology
5. Sequences of construction process
6. Identifying the possible Risks involved (specific to the project)
7. Result and Discussion
8. Conclusion
9. Recommendation
10. References

Each student is expected to do an individual project. At the completion of a project the student will submit a project report, which will be evaluated (end semester assessment) by duly appointed examiner(s). This evaluation will be based on the project report and a viva voce examination on the project. Student will be allowed to appear in the final viva voce examination only if he / she has submitted his / her project work in the form of paper for presentation / publication in a conference / journal and produced the proof of acknowledgement of receipt of paper from the organizers / publishers.