

# Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav School of Management Choice Based Credit System (CBCS) in Light of NEP-2020

# **GENERIC ELECTIVE (EVEN SEMESTER)**

#### **GUMGT203 CONSTRUCTION PLANNING AND MANAGEMENT**

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	Т	P	CREDITS
GUMGT203	GE	Construction Planning and Management	60	20	20	-	-	4	-	-	4

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; GE - Generic Elective \*Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

## **Target Students:**

The course is open to all, but will be particularly useful to any undergraduate student of engineering/ architecture as well as postgraduate students of management.

## **Course Objectives:**

- 1. To give an overall understanding of construction project management
- 2. To impart the knowledge and understanding of various tools and techniques of planning, scheduling and controlling construction projects
- 3. To throw light on some other important aspects while managing construction projects

### **Examination Scheme**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of five questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

#### **Course Outcome:**

After attending this course, the student will have clarity on the stages involved in preimplementation of construction projects, various tools used in construction planning and control, as well as construction contracts.

#### **COURSE CONTENT**

## **UNIT I: Overview of Construction Project Management**

- 1. Project life cycle
- 2. Project feasibility based on socio-techno-economic-environmental analysis



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## **UNIT II: Organisation for Construction Projects**

- 1. Basic forms of organization with emphasis on Project and matrix structures
- 2. Role and responsibilities of project manager, Role of Project Management Consultants.

# UNIT III: Tools and Techniques of Planning, Scheduling and Controlling

- 1. Work break down structure
- 2. Bar chart, Gantt chart, PERT/CPM, GERT
- 3. Activity cost and time estimation, scheduling, crashing, resource leveling
- 4. Monitoring and Control, updating construction schedule

#### **UNIT IV: Construction Contracts**

- 1. Types of construction contracts
- 2. Typical contents in construction contracts

### **UNIT V: Computer Applications in Construction Planning and Monitoring**

- 1. Introduction to software in construction scheduling (MSP, Primavera, etc.)
- 2. MIS in Construction

#### **Suggested Readings:**

- 1. Chandra, P. (2016). *Projects: Planning, analysis, selection, financing, implementation and review.* Tata McGraw-Hill Publishing Co. Ltd.
- 2. Chitkara, K.K. (1998). Construction project management: Planning, scheduling and controlling. Tata McGraw –Hill Publishing Co. Ltd.
- 3. Gahlot, P.S. &Dhir, B.M. (2017). *Construction planning and management*(2<sup>nd</sup>ed.). New Age International Publishers.
- 4. Patrick, C. (2012). Construction project planning and scheduling. Prentice Hall.
- 5. Sengupta, B. &Guha, H. (Latest Ed.). *Construction management and planning*. Tata McGraw–Hill Publishing Co. Ltd.