

## Computer Application in Project Management-II 01CP0203 (LC)

**Objective of the Course:**

- To understand the Software applications in Construction projects.
- To develop models for any project using basics of MS Project Software.

**Credit Earned: 2**
**Students learning outcomes:**

After successful completion of the course, it is expected that student will be able to,

- Use basic and advanced commands of MS Project Software
- Apply resources to the activity defined in the project planning.
- Develop the project scheduling and cost optimisation from the software.
- Solve the real life project problems with the use of Software.

### Teaching and Examination Scheme

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
Theory	Tutorial	Practical		ESE (E)	CSE (I)	IA (M)	Viva (V)	Term Work (TW)	
00	00	04	02	00	00	00	50	50	100

**Detailed Syllabus:**

Sr. No	Topic name	Hours
<b>1</b>	<b>Creating and Defining Projects</b>	<b>8</b>
	Entering Project and File Properties, Setting Appropriate Schedule Options, Setting Corporate Holidays, Importing Data from Office Excel, Updating a Task List, Creating a Multilevel Outline	
<b>2</b>	<b>Working with Estimates and Dependencies</b>	<b>16</b>
	Entering a Duration or Work Estimate, Creating Links Between Tasks, Adding Lag and Lead Times, Displaying Links in Network Diagram View	

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<b>3</b>	<b>Working with Deadlines, Constraints, and Task Calendars</b>	<b>12</b>
	Displaying the Critical Path, Setting a Deadline, Setting a Constraint, Responding To Situations Triggered by Deadlines and Constraints, Creating and Applying a Task Calendar to Meet a Deadline, Finding Constraints in a Schedule and Removing Them, Activating and Using Task Drivers	
<b>4</b>	<b>Working with Resources</b>	<b>12</b>
	Adding Resources to the Resource Sheet View, Creating and Modifying Resource Assignments, Entering Project Costs and Project Budgets	
<b>5</b>	<b>Understanding Task Types and the Scheduling Formula</b>	<b>8</b>
	Identifying the Fixed Variable in a Task and Determining How It Affects the Scheduling Formula, Making Decisions about Task-Type and Effort-Driven Settings, Predicting the Scheduling Formula When Changing Variables	

**Suggested Theory distribution:**

The suggested theory distribution as per Bloom's taxonomy is as per follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember	Understand	Apply	Analyze	Evaluate	Create
00%	40%	40%	10%	00%	10%

**Instructional Method and Pedagogy**

1. Importance and utilization of software in the Civil Engineering sector shall be discussed.
2. The teaching shall be conducted using various teaching aids in computer lab.
3. Attendance in the session is mandatory and shall contain 5% weightage of the internal evaluation scheme.
4. At the end of each session, an assignment based on the content shall be given to the students which shall carry 5% weightage for timely completion and submission of the assigned work.
5. The course includes a practice session, where students shall have an opportunity to carry hands on experience on the software.

**Recommended Study Material**
**Reference Books:**

1. Project Management: The Managerial Process with MS Project, 2013 by Erik Larson & Clifford Gray