

Devi Ahilya University, Indore, India Institute of Engineering & Technology			II Year M.E. (Computer Engineering Sp. in Software Engineering) (Part Time)				
Subject Code & Name	Instructions Hours per Week			Credits			
SEP3C4	L	T	P	L	T	P	Total
Software Project Planning and Management	3	1	2	3	1	1	5
Duration of Theory Paper: 3 Hours							

Learning Objectives:

This course provides the knowledge for correct software development life cycle, create realistic project plans, and manage a software development team through each phase of the project.

The purpose of software project planning and management is to forecast many hazards and risks and problems as possible. The student shall be to plan, organize and control activities so that the project is completed as successfully as possible in spite of all the risks.

Pre-requisites:

A course on software engineering and practical experience of handling college projects.

COURSE CONTENTS

UNIT-I:

Introduction to Software Project Management

Project Definition, Contract Management, Activities Covered by Software Project Management, Overview of Project Planning, Stepwise Project Planning

UNIT-II:

Project Evaluation

Strategic Assessment, Technical Assessment, Cost Benefit Analysis, Cash Flow Forecasting, Cost Benefit Evaluation Techniques, Risk Evaluation

UNIT-III:

Activity Planning

Objectives, Project Schedule, Sequencing and Scheduling Activities, Network Planning Models, Forward Pass, Backward Pass, Activity Float, Shortening Project Duration, Activity on Arrow Networks, Risk Management, Nature of Risk, Types of Risk, Managing Risk, Hazard Identification, Hazard Analysis, Risk Planning and Control

UNIT-IV:

Monitoring and Control

Creating Framework, Collecting the Data, Visualizing Progress, Cost Monitoring, Earned Value, Prioritizing Monitoring, Getting the Project Back to Target, Change Control, Managing Contracts, Introduction, Types of Contract, Stages in Contract Placement, Typical Terms of a Contract, Contract Management, Acceptance.

UNIT-V:

Managing People and Organizing Teams

Introduction, Understanding Behaviour, Organizational Behaviour: A Background, Selecting the Right Person for the Job, Instruction in the Best Methods, Motivation, The Oldman, Hackman Job Characteristics Model, Working In Groups, Becoming a Team, Decision Making, Leadership, Organizational Structures, Stress, Health and safety, case studies

Text Books:

1. Bob Hughes, Mikecoterrell, "Software Project Management", Third Edition, Tata McGraw Hill, 2004.

REFERENCE Books

1. Ramesh, Gopaldaswamy, "Managing Global Projects", Tata McGraw Hill, 2001.
2. Royce, "Software Project Management", Pearson Education, 1999.
3. Jalote, "Software Project Management in Practice", Pearson Education, 2002.

Learning Outcomes:

The aim of the course is to help the student to be a responsible member of the software development team. The student after completion of the course shall be able to comprehend project problems and apply the knowledge on projects and software development. The student also shall be aware of the conditions and constraints such as resources, time, cost and quality.