Anna University | Center for Distance Education

Software project Management

Elective 1 (Code: DMC6001)

Software Project Management

**OBJECTIVES:**

* To know of how to do project planning for the software process.
* To learn the cost estimation techniques during the analysis of the project.
* To understand the quality concepts for ensuring the functionality of the software

**UNIT I SOFTWARE PROJECT MANAGEMENT CONCEPTS 9**

Introduction to Software Project Management: An Overview of Project Planning: Select Project,

Identifying Project scope and objectives, infrastructure, project products and Characteristics. Estimate

efforts, Identify activity risks, and allocate resources- TQM, Six Sigma, Software Quality: defining

software quality, ISO9126, External Standards.

**UNIT II SOFTWARE EVALUATION AND COSTING 9**

Project Evaluation: Strategic Assessment, Technical Assessment, cost-benefit analysis, Cash flow

forecasting, cost-benefit evaluation techniques, Risk Evaluation. Selection of Appropriate Project

approach: Choosing technologies, choice of process models, structured methods.

**UNIT III SOFTWARE ESTIMATION TECHNIQUES 9**

Software Effort Estimation: Problems with over and under estimations, Basis of software Estimation,

Software estimation techniques, expert Judgment, Estimating by analogy. Activity Planning: Project

schedules, projects and activities, sequencing and scheduling Activities, networks planning models,

formulating a network model.

**UNIT IV RISK MANAGEMENT 9**

Risk Management: Nature of Risk, Managing Risk, Risk Identification and Analysis, Reducing the

Risk. Resource Allocation: Scheduling resources, Critical Paths, Cost scheduling, Monitoring and

Control: Creating Framework, cost monitoring, prioritizing monitoring.

**UNIT V GLOBALIZATION ISSUES IN PROJECT MANAGEMENT 9**

Globalization issues in project management: Evolution of globalization- challenges in building global

teams-models for the execution of some effective management techniques for managing global

teams. Impact of the internet on project management: Introduction – the effect of internet on project

management – managing projects for the internet – effect on project management activities.

Comparison of project management software’s: dot Project, Launch pad, openProj. Case study:

PRINCE2.

**TOTAL : 45 PERIODS**

Context

**UNIT I: SOFTWARE PROJECT MANAGEMENT CONCEPTS (9)**

1. Introduction to Software Project Management

1.1 Overview of Project Planning

1.2 Selecting Project

1.3 Identifying Project Scope and Objectives

1.4 Infrastructure, Project Products, and Characteristics

2. Effort Estimation

3. Identifying Activity Risks

4. Resource Allocation

5. TQM, Six Sigma

6. Software Quality

6.1 Defining Software Quality

6.2 ISO9126

6.3 External Standards

UNIT II: SOFTWARE EVALUATION AND COSTING (9)

1. Project Evaluation

1.1 Strategic Assessment

1.2 Technical Assessment

1.3 Cost-Benefit Analysis

1.4 Cash Flow Forecasting

1.5 Cost-Benefit Evaluation Techniques

1.6 Risk Evaluation

2. Selection of Appropriate Project Approach

2.1 Choosing Technologies

2.2 Choice of Process Models

2.3 Structured Methods

UNIT III: SOFTWARE ESTIMATION TECHNIQUES (9)

1. Software Effort Estimation

1.1 Problems with Over and Under Estimations

1.2 Basis of Software Estimation

1.3 Software Estimation Techniques

1.4 Expert Judgment

1.5 Estimating by Analogy

2. Activity Planning

2.1 Project Schedules

2.2 Projects and Activities

2.3 Sequencing and Scheduling Activities

2.4 Networks Planning Models

2.5 Formulating a Network Model

UNIT IV: RISK MANAGEMENT (9)

1. Risk Management

1.1 Nature of Risk

1.2 Managing Risk

1.3 Risk Identification and Analysis

1.4 Reducing the Risk

2. Resource Allocation

2.1 Scheduling Resources

2.2 Critical Paths

2.3 Cost Scheduling

3. Monitoring and Control

3.1 Creating Framework

3.2 Cost Monitoring

3.3 Prioritizing Monitoring

UNIT V: GLOBALIZATION ISSUES IN PROJECT MANAGEMENT (9)

1. Globalization Issues in Project Management

1.1 Evolution of Globalization

1.2 Challenges in Building Global Teams

1.3 Models for the Execution of Effective Management Techniques for Global Teams

2. Impact of the Internet on Project Management

2.1 Effect of the Internet on Project Management

2.2 Managing Projects for the Internet

2.3 Effect on Project Management Activities

3. Comparison of Project Management Software

3.1 dot Project

3.2 Launch pad

3.3 OpenProj

4. Case Study: PRINCE2

# UNIT I: SOFTWARE PROJECT MANAGEMENT CONCEPTS

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| --- | --- |
| **Context** | 1. Introduction to Software Project Management  1.1 Overview of Project Planning  1.2 Selecting Project  1.3 Identifying Project Scope and Objectives  1.4 Infrastructure, Project Products, and Characteristics  2. Effort Estimation  3. Identifying Activity Risks  4. Resource Allocation  5. TQM, Six Sigma  6. Software Quality  6.1 Defining Software Quality  6.2 ISO9126  6.3 External Standards |

1. Introduction to Software Project Management

1.1 Overview of Project Planning

1.2 Selecting Project

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2. Effort Estimation

3. Identifying Activity Risks

4. Resource Allocation

5. TQM, Six Sigma

6. Software Quality

6.1 Defining Software Quality

6.2 ISO9126

6.3 External Standards