

**SARDAR RAJA COLLEGE OF ENGINEERING,
RAJA NAGAR, ALANGULAM**

DEPARTMENT OF COMPUTER APPLICATIONS

MICRO LESSON PLAN



SUBJECT : SOFTWARE PROJECT MANAGEMENT

CODE : MC 9252

CLASS : III MCA / V SEM

STAFF: Mr. R.Sundar, Asst.Prof,

DEPT. OF MCA.

SUBJECT DESCRIPTION AND OBJECTIVES

DESCRIPTION

Managing software people, human element, Scheduling and tracking estimation of software cost and project time, Quality management, process improvement, The role of software metrics in software management, Integrating experience factory (organization structure dedicated to the acquisition and re-use of experience together with its underlying experience base technology) with software project management, Managing inconsistency in software engineering.

Assessment of software development capabilities, some project management tools and techniques.

OBJECTIVES

1. Define and highlight importance of software project management.
2. Describe the software project management activities.
3. Train software project managers and other individuals involved in software project.
4. Planning and tracking and oversight in the implementation of the software project.
5. Management process as described in SECC's SPIG Handbook.
6. To provide an in-depth coverage of software measurement methodologies and a survey of existing metrics and tools for software project management.
7. The capability to work in a team environment and be aware of different modes of Communications.
8. Examine the software project management principles in real life scenarios.
9. Be able to independently evaluate a particular topic of research interest and critically analyze the issues.
10. A basic knowledge of software project management principles.
11. The ability to come up with a project schedule and assign resources.
12. Choose an appropriate project development methodology (e.g. waterfall, spiral...)
13. Identify project risks, monitor and track project deadlines.

UNIT I INTRODUCTION TO SOFTWARE PROJECT MANAGEMENT 9

Project Definition – Contract Management – Activities Covered By Software Project Management – Overview of Project Planning – Stepwise Project Planning.

UNIT II PROJECT EVALUATION 9

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

UNIT III ACTIVITY PLANNING 9

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 9

Creating Framework – Collecting The Data – Visualizing Progress – Cost Monitoring – Earned Value – Prioritizing Monitoring – Getting 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 9

Introduction – Understanding Behavior – 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.

TOTAL: 45 PERIODS

REFERENCES:

1. Bob Hughes and MikeCotterell “Software Project Management”, Third Edition, TATA McGraw Hill Edition 2004.
2. Ramesh, Gopalswamy: "Managing Global Projects ", Tata McGraw Hill, 2001.
3. Royce.” Software Project Theory”, Pearson Education, 1999.
4. P.Jalote “Software Project Management In Practice”, Pearson Education, 2000.

MICRO LESSON PLAN

Hours	LECTURE TOPICS	READING
UNIT I - INTRODUCTION		
1	Introduction	R1
2	Project Definition	R1
3	Contract Management	R1
4	Activities Covered by Software Project Management	R1
5	Activities Covered by Software Project Management	R1
6	Overview of Project Planning	R1
7	Overview of Project Planning	R1
8	Stepwise Project Planning	R1
9	Stepwise Project Planning	R1
UNIT II – PROJECT EVALUATION		
10	Strategic Assessment	R1
11	Strategic Assessment	R1
12	Technical Assessment	R1
13	Technical Assessment	R1
14	Cost Benefit Analysis	R1
15	Cash Flow Forecasting	R1
16	Cost Benefit Evaluation Techniques	R1
17	Risk Evaluation	R1
18	Risk Evaluation	R1
UNIT III – ACTIVITY PLANNING		
19	Objectives, Project Schedule	R1
20	Sequencing and Scheduling Activities	R1
21	Network Planning Models	R1
22	Forward Pass, Backward Pass	R1
23	Activity Float, Shortening Project Duration	R1
24	Activity on Arrow Networks	R1
25	Risk Management-Nature of Risk, Types of Risk	R1
26	Managing Risk, Hazard Identification	R1
27	Hazard Analysis, Risk Planning and Control	R1
UNIT IV – MONITORING CONTROL		
28	Creating Framework, Collecting the data	R1
29	Visualizing Progress, Cost Monitoring	R1
30	Earned Value, Prioritizing Monitoring	R1
31	Getting Project Back to Target	R1
32	Change Controls, Monitoring Contracts	R1
33	Introduction - Types of Contract	R1
34	Stages in Contract Placement	R1
35	Typical terms of a Contract	R1
36	Contract Management, Acceptance	R1

UNIT V MANAGING PEOPLE AND ORGANIZING TEAMS

37	Introduction, Understanding Behavior	R1
38	Organizational Behavior: A Background	R1
39	Selecting the right person for the right job	R1
40	Instructions in the best methods	R1
41	Motivation, The Oldman-Hackman Characteristics Models	R1
42	Working in Groups – Becoming a Team	R1
43	Decision Making – Leadership	R1
44	Organizational Structures – Stress	R1
45	Health and Safety and Case Studies	R1

M.C.A. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2009.

Fifth Semester

MC 1802 — SOFTWARE PROJECT MANAGEMENT

(Regulation 2005)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — ($10 \times 2 = 20$ marks)

1. Name the various software development processes and mention any one key activity in each of them.
2. Write the standards for software process.
3. Write the steps in building a WBS for software.
4. List the activities in project planning.
5. How does software size help in estimating cost or effort?
6. Categorize the risks in software development.
7. Write the tools useful for scheduling the software development activities.
8. Give a typical organizational structure for a large sized software development.
9. Give an example for functional and non functional requirements.
10. Write the major steps involved in SCM.

PART B — ($5 \times 16 = 80$ marks)

11. (a) Explain any one of the product development techniques in detail. (16)

Or

- (b) Discuss any one of the software development process standard in detail. (16)

12. (a) (i) Write notes on Project Portfolio Management. (8)
(ii) Write notes on Work Break down Structure. (8)

Or

- (b) Explain in detail the approaches to build a WBS. (16)
13. (a) Describe in detail any one of the software cost estimation models. (16)

Or

- (b) (i) Write notes on organisational planning. (8)
(ii) Write the differences between the versions of COCOMO models. (8)
14. (a) With suitable illustration explain the use of PERT and CPM in scheduling. (16)

Or

- (b) Write short notes on :
(i) Brain storming.
(ii) Software development dependencies. (8 + 8)
15. (a) Explain how to implement software quality assurance plan with an example. (16)

Or

- (b) Write notes on :
(i) Legal issues in software. (8 + 8)
(ii) Quality Function Deployment (QFD).

Reg. No. :

Question Paper Code : 11482

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2012.

Seventh Semester

Information Technology

IT 2403/IT 73 – SOFTWARE PROJECT MANAGEMENT

(Common to Eighth Semester Computer Science and Engineering)

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Mention the characteristics of software projects.
2. Which factor decides the success of a project?
3. Give the significance of cost benefit analysis.
4. When Net Present Value is calculated for a project?
5. Define the objectives of activity planning.
6. List the factors used to identify the risk.
7. What is bespoke system?
8. What is the use of check points in monitoring?
9. Define stress.
10. List the steps involved in selecting the right person for the job.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the activities of software project management with example. (8)
- (ii) Illustrate few problems associated with software projects. (8)

Or

- (b) Discuss step wise project planning with an example. (16)

12. (a) Explain how risks are handled in a project. Give example. (16)

Or

- (b) Discuss the cash flow forecasting with different cost-benefit evaluation techniques. (16)

13. (a) Explain the different network planning models. Give example for precedence construction. (16)

Or

- (b) (i) Describe the steps involved in risk planning. (8)
(ii) Give the methodology used to evaluate Risk in a project. (8)

14. (a) (i) Describe the various ways in visualizing the progress of the project. (8)
(ii) Explain the process of prioritizing monitoring. Give example. (8)

Or

- (b) Discuss the types of contracts with example. (16)

15. (a) (i) Give an example for becoming a team and explain working within groups with example. (8)
(ii) Explain the different ways of decision making. (8)

Or

- (b) Discuss the organizational behavior with example. (16)