

Software Project and Change Management

SY623C

COURSE OBJECTIVE

Knowledge Level

- To provide experience in using the concepts, techniques, and decision tools available to project managers.
- To emphasize the importance of system and organizational culture to ensure an integrative project management approach.
- To enlarge a basic understanding of the importance of work breakdown structures and networks to planning, scheduling, and controlling projects.
- To identify different types of organizational structures
- To create an awareness of potential resource conflicts and their importance to meeting project cost and schedule objectives.
- To demonstrate the importance of strategy and prioritizing projects for effective resource allocation and for balancing a portfolio of projects.
- To have a holistic view of projects and their role in the IT sector, with detailed skills in use of project tools and systems found in practice and with a sensitivity to the behavioral issues all project managers must deal with in practice.

Skill Level

- To familiarize with project management tools (MS project used here) to manage a software project end-to-end.

CONDUCT OF THE COURSE

- The class is intended to be very participatory.
- Case Study/ Presentation.
 - Nominated groups will submit a case study/ presentation in which a particular problem is analysed and a contribution made to its solution. Suggested types of case study/ presentations include:
 - A case study or story about how managers in a firm could deal with a problem in managing an IT project.
 - A pilot implementation of a new method for managing IT, such as a method for IT planning, requirements determination, evaluation, risk assessment, sourcing, etc.
 - Any other project management topic not covered in the course. See Appendix for suggested topics.
- Presentation Method: A 20 minutes presentation with appropriate media, of the problem, setting, method, results and implications. The final written report along with a copy of the slides being presented will be submitted prior to the presentation.

REQUIRED COURSE MATERIALS AND READINGS

Textbook

- Software Project Management, by Bob Hughes, Mike Cotterell and Rajib Mall, Tata McGraw Hill, 5E, Second Reprint 2011, ISBN-13:978-0-07-107274-8; ISBN-10: 0-07-107274-8.

Reference

- Software Project Management in Practice, by Pankaj Jalote, Pearson Education, 2003, ISBN 81-7808-664-6
 - PMBOK
- Software Tools**
- Microsoft Project Software

EVALUATION CRITERIA

▪ Mid Semester Examination	30%
▪ Case Study/Presentation	10%
▪ MS Project Exercise	10%
▪ Class Participation	10%
▪ Final Examination	40%

ACADEMIC DISHONESTY

- Students are cautioned to avoid all forms of academic dishonesty (any type of cheating that occurs in relation to a formal academic exercise). Due care should be taken to desist from plagiarism i.e. adoption or reproduction of original creations of another author (person, collective, organization, community etc), without due acknowledgment (reference and citation).
- In accordance with the University Code of Academic Misconduct, plagiarism in any form will result in a “F” for this course. Cheating on exams would result in similar penalties.

TEACHING METHODS; EXPECTATION FROM THE STUDENTS; ATTENDANCE POLICY ETC

Teaching Methods

The classroom activity will consist of lectures and case discussions. Individual/Group assignments and presentations will complement the classroom discussions in enhancing the understanding of the subject.

Expectation from the Students

The students are expected to prepare well in advance from the relevant references assigned before attending the sessions to make the classroom activity more meaningful and fruitful. Each student is expected to possess a copy of the prescribed textbook.

Attendance

ASB policy on attendance will be applicable for the duration of the course.

DETAILS OF SESSIONS; TENTATIVE COURSE SCHEDULE

Sessi on No	Topic	Objectives	Assigned Reading- (Chapters from Text Book & Cases)
1	Introduction to software project Management	Define the scope of software project management, Software project versus other types of projects, Understand the problems and concerns of software project manager, the role	Software Project Management –

		of management, appreciate the need of careful planning, monitoring and control, identify the stake holders of a project and their objectives.	Bob Hughes and Mike Cotterell, Chapter 1
2-3	Project evaluation and Programme management	Projects are grouped in to programmes,how the implementation of programmes and projects can be managed so that the planned benefits are achieved, carry out evaluation and selection of projects against strategic, technical and economic criteria, use of cost benefit evaluation techniques for choosing among competing project proposals, evaluate the risk involved in a project and select appropriate strategies for minimizing potential costs.	Hughes, Chapter 3
4	Project Organization	Alternate organizational structures	PMBOK
5	An overview of project planning	Approach Project Planning in an organized step by step manner, see where the techniques fit in the overall planning approach, and repeat planning process in more detail for set of activities within a project as it unfolds.	Hughes, Chapter 2
6	Selection of appropriate project approach	Take account of characteristics of the system to be developed when planning a project and select an appropriate process model.	Hughes, Chapter 4
7-9	Software effort estimation	Range of estimation methods that can be used, estimate projects using the top down, bottom-up and use case approaches, function points and COCOMO-II approach.	Hughes, Chapter 5
10-12	Scheduling	Produce an activity plan for a project, WBS, estimate the overall duration of a project, create a precedence network, identify critical path, crashing etc	Hughes, Chapter 6
13	Risk Management	Identify the factors of project risk, categorize and prioritize actions for risk elimination or containment, Quantify the likely effects of risk on project timescales, PERT technique	Hughes Chapter 7
14-15	Resource allocation	Identify the resources required for a project, produce a work plan and resource schedule, resource leveling and smoothing	Hughes , Chapter 8
16	Project Management Plan	Project plan	Jalote, Chapter 8
d d	Monitoring and Control	Monitor the progress of projects, earned value analysis, revise targets to correct or counteract drift, control changes to a projects	Hughes, Chapter 9

d d d		requirements	
19	Project Closure	Role of closure analysis, Performing closure analysis and closure analysis report	Jalote, Chapter 12
20	Managing Contracts	ISO 12207 approach to acquisition and supply of software, types of contract, contract management	Hughes, Chapter 10
	Managing People and Organizing teams, Behavioral issues in PM	Identify some of the factors that influence peoples behaviour in a project environment, select and induct new staff in to a project, increase staff motivation, improve group working, use the most appropriate leadership style, evaluate the characteristics of various team structures, behavioural issues, communication, Conflict and User involvement	Hughes, Chapter 11
21-24	Case Study/ Presentations		To be discussed in the Class

Student Presentations will be scheduled from session 21 onwards.

** 1 Session= 75 Min. (1 hr 15mins)

Self study ---Srl 15. Managing People and Organizing teams, Behavioral issues in PM