Course No.   : SS ZG622

Course Title   : Software Project Management

Instructor   : KG Krishna

Course Description

Overview of Software Engineering, Project Management Concepts, Software Process & Project Metrics, Software Project Planning, Project Evaluation, Selection of an appropriate project approach, Software site, effort and cost Estimation, Risk Analysis & Management, Project Scheduling & Tracking, Activity Planning, Resource Allocation, Project Monitoring & Control, Managing Contracts, Managing People and Organizing teams, Software Quality Assurance, Software Configuration Management

Scope and Objectives

This course covers the management techniques required to plan, organize, monitor, and control software projects. It addresses the following questions:

- How must be people, process, and problem be managed during a software project?
- What are software metrics and how can they be used to manage a software project and the software process?
- How does a software team generate reliable estimates of efforts, cost, and project duration?
- What techniques can be used to formally asses the risks that can have an impact on project success?
- How does a software project manager select the set of software engineering work tasks?
- How is a project schedule created?
- How is quality defined so that it can be controlled?
- What is software quality assurance?
- Why are formal technical reviews so important?
- How is change managed during the development of computer software and after delivery to the customer?

At the end of the course, student should be able to understand the nuances of software project management and various tools, methodologies and metrics along with few undocumented/informal knowledge of a seasoned project manager—for quality and on-time delivery of software project.

Students are expected to observe the PM practices in their organizations and relate them to formal methodologies espoused in the books and discussed in the class-room.

Prescribed Text Books

T1.   Pressman, R.S. Software Engineering : A Practitioner's Approach, 7th Edition, TMH, 2010

T2.   Hughes, B and Cotterel, M., Software Project Management, 11th Edition, TMH, 2011

Additional Reading

Sommerville, Ian: Software Engineering; 8th Edition, Addison Wesley, 2009

Pankaj Jalote, Software Project Management in Practice, Perason Education, 2002

Frank Tsui, Managing Software Projects, Jones&Bartlett, 2011

Plan of Self Study

S.No.	TOPIC	Reference to Text Book
1.	Overview of Software Engineering The Product The Process	 T1- Chapter 1 T1- Chapter 2
2.	Project Management Concepts	T1- Chapter 3 T2- Chapter 1
3.	Software Process & Project Metrics	T1-Chapter 4
4.	Software Project Planning	T1-Chapter 5
5.	Stepwise : An overview of project planning	T2-Chapter 2
6.	Project Evaluation	T2-Chapter 3
7.	Selection of an appropriate project approach	T2-Chapter 4
8.	Software Effort Estimation	T2-Chapter 5
9.	Review Session	
	Syllabus for Mid- Semester Test (Closed Book): Topics in S. No. 1 to 9	
10.	Risk Analysis & Management	T1-Chapter 6 T2-Chapter 7
11.	Project Scheduling & Tracking	T1-Chapter 7
12.	Activity Planning	T2-Chapter 6
13.	Resource Allocation	T2-Chapter 8
14.	Project Monitoring & Control	T2-Chapter 9
15.	Managing Contracts	T2-Chapter 10
16.	Managing People and Organizing teams	T2-Chapter 11
17.	Software Quality Assurance	T1-Chapter 8 T2-Chapter 12
18.	Software Configuration Management	T1-Chapter 9
	Syllabus for Comprehensive Exam (Open Book): All topics given in Plan of Self Study	

Evaluation Scheme:

EC No.	Evaluation Component & Type of Examination	Duration	Weigh-tage	Day, Date, Session,Time
EC-1	Assignment/Quiz	*** Details to be announced on LMS Taxila website by Instructor*	15%	*** Details to be announced on LMS Taxila website by Instructor*
EC-2	Mid-Semester Test (Closed Book)*	2 Hours	35%	Sunday, 16/02/2014 (AN)* 2 PM – 4 PM
EC-3	Comprehensive Exam (Open Book)*	3 Hours	50%	Sunday, 06/04/2014 (AN)* 2 PM – 5 PM

*** Please check the details by January 10, 2014 on LMS Taxila web site.*

AN: AfterNoon Session**;   FN:** ForeNoon Session
Closed Book Test: No reference material of any kind will be permitted inside the exam hall.
Open Book Exam: Use of any printed / written reference material (books and notebooks) will be permitted inside the exam hall. Loose sheets of paper will not be permitted. Computers of any kind will not be allowed inside the exam hall. Use of calculators will be allowed in all exams. No exchange of any material will be allowed.

Note:
It shall be the responsibility of the individual student to be regular in maintaining the self study schedule as given in the course handout, attend the online/on demand lectures as per details that would be put up in the **BITS LMS Taxila** website **www.taxila.bits-pilani.ac.in** and take all the prescribed components of the evaluation such as Assignment **(Course Page on LMS Taxila),** Mid Semester Test and Comprehensive Examination according to the Evaluation Scheme given in the respective Course Handout. If the student is unable to appear for the Regular Test/Examination due to genuine exigencies, the student must refer to the procedure for applying for Make-up Test/Examination, which will be available through the Important Information link on the **BITS LMS Taxila** website **www.taxila.bits-pilani.ac.in** on the date of the Regular Test/Examination. The Make-up Tests/Exams will be conducted only at selected exam centres on the dates to be announced later.

Instructor-in-Charge