

University of Computer Studies, Yangon
Faculty of Information Science
2019-2020 Academic Year

Subject Code	CS-405	Subject Name	Software Engineering
Semester	First	Course Coordinator	Dr.Khine Khine Oo
Credit	3		
Credit Hours	37.5 hours		
Weeks	15 Weeks		
Period	45 period (1 period :50 Mins) 3 period per week		

Course Description

The course covers key components of project management including project integration, project scope management, project time and cost estimation, quality management, human resource considerations, communications, risk management, process improvement and configuration management.

Course Objective

- To understand the importance of PM in most industries and businesses
- To understand the distinct stages in the Project's life cycle.
- To understand the importance of team building specifically in heterogenous and virtual teams as well as governance and approaches to conflict resolutions
- To understand the preparing the quality the quality plan for project
- To understand the process improvement and configuration management plan for the project

Learning Outcomes

At the end of this course student will:

- Know the importance of PM in most software industries
- Describe the distinct stages of the Project's life cycle.
- Know the importance of leadership and managing people specifically in project
- Recognize issues in a realistic project scenario.
- Prepare the project proposal for the real application
- Set the quality issues on the proposed project plan.
- Set the version system for the release software product
- Calculate the software estimation cost
- Apply the PM process to real application project and discuss the implementation of a proposed plan.

Prerequisites

- Basic understanding of the software development life cycle (SDLC).
- Basic understanding of software programming using any programming language.

Major topic covered in the course

- Project Management
- Managing People
- Software Cost Estimation
- Quality Management
- Process Improvement
- Configuration Management

TextBook

- Software Engineering (8th Edition) ,Ian Sommerville

Software

- Java JDK 1.5 and above
- Gantt Chart

Learning Assessments

Exam	: 60%
Tutorial Test	: 10%
Assignment	: 10%
Project	: 10%
Quiz	: 5%
Practical and Class Room Participation	: 5%

Course Policy

Participation

Attendance is a prerequisite, not a substitute for class participation. Participation mechanisms include: (1) responding to questions asked in class, (2) initiating discussions on new points in class and (3) discussing cases and offering solutions to problems .

Tutorial Test and Quizzes

The student is expected to complete the tutorial tests and Quizzes at the scheduled time. If a tutorial test or quiz is missed, there will be no make-ups tutorial or quiz for missing student. No make –ups test or resubmission and extra credit test are not available in this course. Tutorial tests and quizzes are based upon all learning objectives to be reached before the scheduled date.

Assignment

There will be theory and practical assignments which must be submitted. The assignment may be individual or Group. The individual assignment is individual work and tests the ability of each student. Group assignment is team work and tests the ability of collaboration of student to complete the given work.

The due dates for the given assignments are going to be declared by the instructor and there will be no make-ups or individual extensions. No make –ups Assignment or resubmission and extra credit assignment are not available in this course.

In addition to the hardcopies of assignments, electronic (and certifiably virus free) copies should be e-mailed to instructor on the date they are due.

Project

The paper project will be prepared and make the presentation at the end of first semester. The project must be based on the lecture of this course and it is group assignment. The project guideline and schedule are declared by the instructor.

Intellectual Honesty

By departmental policy, the discovery of plagiarism (i.e. copying from another's assignment paper or practical solution or tutorial paper) will result in a reduction of result marks of relevant students.

Lecture Plan

CS-405 : Software Engineering

First Semester

Text Book : Software Engineering (8th Edition) Ian Sommerville

Period : 45 Periods for 15 Weeks (3 Periods * 15 Weeks)

No.	Chapter	Page	Period	Remark
1	Chapter 5 : Project Management 5.1 Management activities 5.2 Project planning 5.3 Project scheduling 5.4 Risk management Key Points Further Reading Exercises	92	7	Detail
2	Chapter 25 Managing people 25.1 Selecting staff 25.2 Motivating people 25.3 Managing groups 25.4 The People Capability Maturity Model Key Points Further Reading Exercises	589	7	Detail
3	Chapter 26 Software cost estimation 26.1 Software productivity 26.2 Estimation techniques 26.3 Algorithmic cost modelling 26.4 Project duration and staffing Key Points Further Reading Exercises	612	7	Detail
4	Chapter 27 Quality management 27.1 Process and product quality 27.2 Quality assurance and standards 27.3 Quality planning 27.4 Quality control 27.5 Software measurement and metrics Key Points Further Reading Exercises	641	7	Detail
5	Chapter 28 Process improvement 28.1 Process and product quality	665	7	Detail

	28.2 Process classification 28.3 Process measurement 28.4 Process analysis and modelling 28.5 Process change 28.6 The CMMI process improvement framework Key Points Further Reading Exercises			
6	Chapter 29 Configuration management 29.1 Configuration management planning 29.2 Change management 29.3 Version and release management 29.4 System building 29.5 CASE tools for configuration management Key Points Further Reading Exercises	689	7	Detail
7	Revision and Project Presentation		3	
		Total	45	