National University of Sciences & Technology (NUST)
School of Electrical Engineering &Computer Science (SEECS)
Software Engineering Department

Software Project Management			
Course Code:	SE-430	**Semester:**	Fall 2017- 7th Sem
Credit Hours:	3+0	**Prerequisite:**	SE-200 Software Engineering
Instructor:	Dr. Seemab Latif	**Class:**	BESE-5 A&B
Office:	IAEC Room 302	**Telephone:**	
Lecture/Lab Days:	Monday, Wednesday, Friday	**E-mail:**	seemab.latif@seecs.edu.pk
Class Room:	CR 4 and CR 6	**Consulting Hours (STI):**	Tuesday 10:00 – 11:00 Thursday 11:00 – 12:00
Lab Engrs:	NA	**Lab Engr email.**	NA
Knowledge Group:	Software Engineering	**Updates on LMS:**	After every lecture

Course Description:
The Software Project Management (SPM) course covers the complete life cycle of a project and teaches students the techniques and tools that shall help them as project managers in successfully managing projects. The course teaches how to handle SPM through better understanding of reasons why software projects fail, software characteristics, software models, software projects planning, monitoring, time, cost, HR, Quality & risk management.
Course Objectives
The course objective is that its successful completion should develop understanding of Software Project Management practices and its application to software engineering. Further, it should lay down the analyzing and designing strategies for effectively managing different types of software projects.

Course Outcomes:

Upon successful completion of the course, the student will be able to:

Sr.	CLO	PLO Mapping**	BT Level*
1	Understand the key knowledge areas of Software Project Management (SPM) and the challenges faced by Software project managers.	PLO-1	C-2
2	Demonstrate through application, the knowledge of the key SPM skills.	PLO-3	C-4
3	Develop the project management strategy and evaluate it in business context.	PLO-11	C-6

* BT= Bloom's Taxonomy, C=Cognitive domain, P=Psychomotor domain, A= Affective domain

- *Knowledge(C-1), Comprehension(C-2), Application(C-3), Analysis(C-4), Synthesis(C-5), Evaluation(C-6)*
- *Perception(P-1), Set(P-2), Guided Response(P-3), Mechanism(P-4), Complete Overt Response(P-5), Adaption(P-6), Organization(P-7)*
- *Receiving(A-1), Responding(A-2), Valuing(A-3), Organization(A-4), Internalizing(A-5)*

** Description of Program Learning Outcomes (PLOs) is available on website and in a separate document.

Books:	
Text Books:	• Information Technology Project Management 6th Edition by Kathy Schwalbe (First chapter available freely on the Internet).
Reference Books:	• PMBOK Guide: A Guide to the project management body of Knowledge • Object Oriented Software Engineering – using UML, Patterns, and Java, by Bernd Bruegge and Allen H. Dutoit, Third Edition, Prentice Hall, (2010). • Software Engineering: Software Engineering by Roger S. Pressman

Mapping of CLOs to Program Learning Outcomes

PLOs/CLOs	CLO1	CLO2	CLO3
PLO 1 (Engineering Knowledge)	√		
PLO 2 (Problem Analysis)			
PLO 3 (Design/Development of Solutions)		√	
PLO 4 (Investigation)			
PLO 5 (Modern tool usage)			
PLO 6 (The Engineer and Society)			
PLO 7 (Environment and Sustainability)			
PLO 8 (Ethics)			
PLO 9 (Individual and Team Work)			
PLO 10 (Communication)			
PLO 11 (Project Management)		√	
PLO 12 (Lifelong Learning)			

Weekly Breakdown of the topics:

Week/ Lec	Topic	Activity	CLOs	PLOs	Learning Domain	Level of Learning
1.	Introduction to Software Project Management	Lec	CLO1	1	Cognitive	2
2.	Project Management Process	Lec	CLO1	1	Cognitive	2
3.	Software Development Process Models.	Lec, Quiz 1, and Assign1	CLO1	1	Cognitive	2
4.	Tailoring and Customizing the Software Process	Lec and Quiz 2	CLO1	1	Cognitive	2
5.	Software Project Planning	Lec	CLO2	3	Cognitive	4
6.	**OHT I**					
7.	Project Scope Management	Lec	CLO2	3	Cognitive	4
8.	Project Scheduling and Tracking	Lec and Quiz 3	CLO2	3	Cognitive	4
9.	Software Cost Estimation	Lec and Assign2	CLO2	3	Cognitive	4
10.	People and communication management	Lec and Quiz 4	CLO3	11	Cognitive	6
11.	Risk Analysis and Management	Lec	CLO2	3	Cognitive	4
12.	**OHT II**					
13.	Project Quality Management	Lec and Assign3	CLO3	11	Cognitive	6
14.	Project Procurement Management	Lec and Quiz 5	CLO3	11	Cognitive	6
15.	Software Process and Project Metrics	Lec	CLO3	11	Cognitive	6
16.	Report Writing	Lec	CLO3	11	Cognitive	6
17.	Semester Project	Presentations	CLO3	11	Cognitive	6
18	**Final Exam**					

Term Project:

The project in this course is a group project. Project will be done in a group of 3-4 students. Each group will be required to define a project in consultation with the teacher and then take it through the complete software project management cycle. The purpose of this project is to give the students a feel of a systematic cycle a software project typically geos though.

Deliverable 01:	Kickoff Meeting Minutes and Project Charter
Deliverable 02:	Project Management Plan
Deliverable 03:	Work Breakdown Structure
Deliverable 04:	Project Activity Diagram
Deliverable 05:	Project Costing Document
Deliverable 06:	Project Risk Management Plan
Deliverable 07:	Project Closing Report

Mapping of CLOs to Assessment Modules and Weightages

Assessments/CLOs	**CLO1**	**CLO2**	**CLO3**
Quizzes: 10%			
Assignments: 10%			
OHT-1& 2: 30%			
Project: 10%			
End Semester Exam: 40%			

Grading Policy:	
Quiz Policy:	The quizzes will be announced and unannounced and normally last for 15-20 minutes. The questions framed are to test the concepts involved in last few lectures. Grading for quizzes will mostly be on a fixed scale of 0 to 10.
Assignment Policy:	In order to develop comprehensive understanding of the subject, assignments will be given. **Late assignments will not be accepted / graded.** All assignments will count towards the total. The students are advised to do the assignment themselves. Copying of assignments is highly discouraged and violations will be dealt severely by referring any occurrences to the disciplinary committee. The questions in the assignment are meant to be challenging to give students confidence and extensive knowledge about the subject matter and enable them to prepare for the exams.
Plagiarism:	SEECS maintains a zero tolerance policy towards plagiarism. While collaboration in this course is highly encouraged, you must ensure that you do not claim other people's work/ ideas as your own. Plagiarism occurs when the words, ideas, assertions, theories, figures, images, programming codes of others are presented as your own work. You must cite and acknowledge all sources of information in your assignments. Failing to comply with the SEECS plagiarism policy will lead to strict penalties including zero marks in assignments and referral to the academic coordination office for disciplinary action.

Tools / Software Requirement:	
	Student will work on any requirements management tool for assignments purpose.