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Department of Computer Engineering	
Software Engineering (66312)	
Total Credits	**3**
major compulsory	
Prerequisites	P1 : Object Oriented Programming (66212)

Course Contents

The content of the course concentrate on introductory, intermediate and some advanced level: Course Introduction and what is software engineering, emergent system properties, the system engineering process, Critical Systems, Software Processes, Software requirements, Requirements engineering process, System and context models, Architectural design, UML : Unified Modeling Language , Software implementation, software Testing, software evolution , distributed systems , Project Managements and Risk Managements.

	Intended Learning Outcomes (ILO's)	Student Outcomes (SO's)	Contribution
1	Apply the knowledge of software and system engineering process, (agile) software development methodologies and techniques, Requirements Engineering, Testing and evolution techniques to develop good quality software that meets the desired needs.	C	55 %
2	Apply the basics of System modeling using (UML), the architectural design, the project and risk managements to build a good quality software	K	40 %
3	Work as a team	D	5 %

Textbook and/ or Refrences

Software Engineering, Ian Sommerville, Addison Wesley, 2011, 9th.

Assessment Criteria	Percent (%)
First Exam	20 %
Second Exam	20 %
Projects	15 %
Final Exam	45 %

Course Plan

Week	Topic
1-4	Introduction on Software engineering Software engineering ethics, Socio technical Systems Software Processes Agile Software Development
5-6	Requirements Engineering
7-12	First Exam System Modeling Architectural Design Design and Implementation Software Testing Software Evolution
13-16	Security and Dependability Specification Project Planning and Risk Project Management
16	Final exam