

King Fahd University of Petroleum & Minerals

Deanship of Educational Services Continuing Education Programs

Short Course

Proposed course title in English: Practical Software Engineering

Proposed course title in Arabic: هندسة البرمجيات التطبيقية

Brief description in English		Brief description in Arabic	
This course provides software professionals with a comprehensive coverage of practical software engineering practices and techniques.		يوفر هذا المساق لمحترفي البرمجيات تغطية شاملة لتطبيقات وتقنيات هندسة البرمجيات العملية.	
Date and Time – Gregorian		Date and Time – Hijri	
9 – 13 February, 2013		٢٨ ربيع الأول – ٣ ربيع الثاني ١٤٣٤ هـ	
Department		Language	
Information and Computer Science		English	
Course fee	Course duration	Course location	
7,000 SR	5 Full Days	KFUPM / Building 54	

Who should attend?

This course is targeted to benefit software analysts, developers, architects, designers, testers and managers. Some background and experience in software development will be helpful. This course also provides a preparation for the IEEE Computer Society “Certified Software Development Professional (CSDP)” examination.

Detailed course description:

This course explains the importance of good software practices and explains the different software processes. It then introduces software-modeling languages with great emphasis on the Unified Modeling Language (UML) and explains its use in requirement specification, analysis and design. Software architecture and reuse through design patterns shall be explained. Various types of software validation and verification, especially testing, will be discussed. Software project management will also be discussed.

Course outline/topics:

1. Software Engineering: A Preview
2. Introduction to Software Process Models
3. Software Project Management
4. Requirements Elicitation and Analysis Techniques
5. System Models
6. Technical Methods for Specifying Requirements
7. Design Principles
8. Software Architecture
9. Design Patterns, Software Components, and Frameworks
10. Web Engineering
11. Software Testing, inspections, and reviews.

Name and designation of instructors:

Name	Designation
1. Dr. Moataz Ahmed	Associate Professor, ICS Department
2. Dr. Mohammad Alshayeb, PMP	Assistant Professor, ICS department
3. Dr. Mahmoud Niazi	Associate Professor, ICS department
4. Dr. Mahmoud Elish	Assistant Professor, ICS department
5. Dr. Mohammed El-Attar	Assistant Professor, ICS department
6. Mr. Irfan Ahmed	Lecturer, ICS department

Course special arrangements (if any):

This course requires the use of Software Engineering lab with Rational Rose, MS-Project and JUnit.

Coordinator Information

Name	Contact Tel. Nos.: & Fax No.	E-mail Address
Dr. Moataz Ahmed	Tel: 860-2763 Fax: 860-2174	moataz@kfupm.edu.sa