MC426: Software Engineering

Prerequisite: MC302

Description:
Software engineering paradigms. Data gathering/elicitation. Techniques and tools for user and system requirements specification. Analysis methods and information systems project. Information systems implementation.

Programme:
1. Introduction
   a. Basic concepts
   b. Software engineering paradigms
   c. The importance of user requirements specification
   d. The software project's role in developing systems
   e. The value of testing in software quality
2. The early development of a system
   a. User requirements specification
   b. Methods for user requirements analysis
3. Systems project
   a. Key aspects: abstraction, refinement, modularity, architecture, control hierarchy, data structure, information hiding
   b. Environment design, interfaces design, modules design, data design and real-time systems project
   c. Methods for systems project
4. Systems implementation
   a. Programming languages
   b. Database management systems
   c. Utilities/tools
5. Management and control aspects

Recommended Literature: