**Course Code:**CSE3203

**Course Title: Software Engineering**  
**Credit Hour:**3.00  
**Prerequisite:** CSE3103

**Content**: Introduction to Software Engineering: What is Software, Software Engineering, Importance of Software Engineering, Essential attributes of good software, Framework activities, Umbrella Activities, The Essence of Practice, Hooker’s General Principles for Software Engineering Practice, Software Myths. Software Requirement Specification and Analysis: Scenario Based Models: User Scenario, Data Based Models: Noun Identification, Data Object Relation, Object Oriented Analysis and Design: General Classification, Coad & Yourdon’s criteria, Principles of class design (SOLID principles), Design patterns: Creational Patterns, Structural Patterns, Behavioral Patterns, Architectural patterns and scaling concern, Software Quality Assurance: Static Testing, Dynamic Testing: Black box testing and White box testing, Test Automation, Project management: Estimation, Project Scheduling, Risk Management, Change Management.

**Textbook:**

1. Software Engineering: A Practitioner's Approach 8th Edition by Roger S. Pressman.
2. Software Engineering, 9th Edition by Ian Sommerville.
3. Object-oriented and classical software engineering 8th edition by Schach.
4. Software Testing: Principles and Practices by Naresh Chauhan