Course Title: Software Engineering

Course Code: SE-301

Credit Hours: 3 (2+1)

Instructor: Dr. Ayesha Khan

Office Hours: Mon/Wed 11:00 AM - 12:30 PM

Course Description:

This course introduces software engineering principles, methodologies, and best practices including requirements analysis, design, implementation, testing, and maintenance.

Course Objectives:

- Understand the software development life cycle (SDLC)

- Apply UML for modeling software systems

- Develop software using Agile practices

Grading Policy:

- Assignments: 20%

- Quizzes: 10%

- Midterm Exam: 30%

- Final Exam: 40%

Textbook:

"Software Engineering" by Ian Sommerville, 10th Edition

Weekly Schedule:

Week 1: Introduction to Software Engineering

Week 2: Software Development Models (Waterfall, Agile)

Week 3: Requirements Engineering

Week 4: Use Case Modeling

Week 5: System Design and Architecture

Week 6: Testing and Quality Assurance

Week 7: Agile Development

Week 8: Midterm Exam

Week 9-14: Project Work

Week 15: Final Exam Review