



**MEHRAN UNIVERSITY  
OF ENGINEERING & TECHNOLOGY,  
JAMSHORO, SINDH, PAKISTAN**

**B.E Course in Software Engineering**

# **Software Quality Engineering (SW426)**



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# Outlines

- **Course Learning Outcomes**
- **CLOs mapped with PLOs (Program Learning Outcomes)**
- **Marks Distribution**
- **Assessment Methods**

# Software Quality Engineering

- **Overall Course Objectives:**
  - To have an understanding of the basics and fundamentals of software quality assurance
  - To have hands-on practice on various testing techniques on different applications

# Software Quality Engineering

- **Course Learning Outcomes:**
  - **CLO-1:** *Explain basics of software quality assurance and testing fundamentals* - Cognitive Level 2 PLO-1 (Engineering Knowledge)
  - **CLO-2:** *Analyze different scenarios to grasp working mechanism of various testing techniques* - Cognitive Level 4 PLO-2 (Problem Analysis)
  - **CLO-3:** *Construct Test cases and perform testing on various applications using Modern Tools* - Psychomotor Level 4 PLO-5 (Modern Tool Usage)

# Software Quality Engineering

- **Marks Distribution:**

- **Theory (100 Marks):**

- *20% Sessional (Quiz/Tests/Assignment)*
    - *80% Written examination (20% Mid-exam & 60% final exam)*

- **Practical (50 Marks):**

- *40% Sessional (Lab Evaluation & Project)*
    - *60% Final examination (50% Objective test & 50% viva-voce )*

# Software Quality Engineering

- Marks Distribution CLOs perspective:**

Theory	Practical
CLO-1: 40 Marks (Mid & Final)	CLO-1: 10 Marks (Objective Test)
CLO-1: 40 Marks (Assignment, Mid & Final)	CLO-2: 5 Marks (Objective Test)
CLO-3: 5 Marks (Assignment)	CLO-3: 30 Marks (Lab evaluation & Project via-voce)
NO-CLO: 10 Marks (attendance)	NO-CLO: 5 Marks (attendance)

# Software Quality Engineering

- **Assessment Methods:**
  - Subjective Written Examination
  - Objective Test (MCQs)
  - Several Rubrics based on different Lab objectives
    - E.g., Originality, Engineering knowledge
- Software Engineering, Practitioners Approach, Roger S. Pressman, Mc.Graw Hill Inc, Latest Edition.
- Foundation of Software Testing, Dorothy Graham, Cengage Learning EMEA Publishers, Latest Edition.

# Software Quality Engineering

- **Recommended Books:**

- Software Engineering, Practitioners Approach, Roger S. Pressman, Mc.Graw Hill Inc, Latest Edition.
- Foundation of Software Testing, Dorothy Graham, Cengage Learning EMEA Publishers, Latest Edition.