| Code | Subject Title | Cr. Hrs | Semester |
|---|---|---|---|
| **IT-407** | **Software Quality Assurance** | **3** | **VIII** |
| Year | Discipline | | |
| **4** | **Political Science** | | |

**Objective:**

The objective of this course is to study in detail the issues involved in software quality engineering. The course focuses on current practice, research and trends in Quality. The following topics will be covered in the course: Introduction to Software Quality Assurance, Software Quality in Business Context, Quality Assurance in Software Support Projects, Product Quality and Process Quality, Models for Software Product Quality, Hierarchal Quality Model, Factor Criteria Metrics model (FCM), McCall's Model, Boehm's Model , FURP Model, ISO 9126 Model, Dromey's Quality Model, QMOOD, SATC's Quality Model , Non Hierarchal Models, Bayesian Belief Model, Star Model, CMM, Software Metrics, Defect Metrics, Reliability Metrics, GQM, Introduction to Testing, Software Testing Principles, Test Planning, Measurement, Execution, and Reporting, Software Testing Techniques, White Box Testing, Black Box Testing, Software Testing Strategies, Regression Testing, Alpha Testing, Beta Testing, Integration Testing, Bottom-Up Integration Testing, Verification and Validation, Unit Testing, Integration Testing, Validation Testing, System Testing, Recovery Testing, Security Testing, Performance Testing, Stress Testing, Review Techniques.

**Prerequisites**

None

**Recommended Books:**

- Nina S Godbole, Software Quality Assurance, Alpha Science International, Ltd (2004), ISBN-10: 1842651765
- R A Khan, K Mustafa, SI Ahson, Software Quality, Concepts and Practices, ISBN: 81-7319-722-9
- Srinivasan Desikan, Gopalaswamy Ramesh, Software Testing Principals and Practices, ISBN: 81-7758-121-X
- Stephen H. Kan, Metrics and Models in Software Quality Engineering, Second Edition, ISBN: 81-297-0175-8
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