Course Title	**Software Quality Assurance**
Course Code	**EC-432**
Credit Hours	3
Category	Technical Elective
Prerequisite	Software Engineering
Co-Requisite	None
Follow Up	None
Course Description	Software Quality, Software Quality Attributes, Quality Engineering., Testing: Concepts, Issues, and Techniques, Software testing lifecycle., Testing Scopes., Testing Approaches., Testing Concepts., Test Planning Process, Introduction to testing process, Requirement of software test planning, Testing documentation, Reporting and historical data recording., Software testing techniques, Testing philosophies , Testing strategies, Model based testing, Software testing techniques, Testing using models, Domain and combinatorial testing, Unit and integration testing, Acceptance testing, Test automation, Slicing, Software reliability models and engineering, Introduction, Exponential model., Reliability growth models, Modeling process, Software inspections, Software reviews, Inspection checks and metrics, Quality Models, Models for quality assessment, Product quality metrics, Quality Measurements, In-Process metrics for software testing, In-Process quality management, Effort/outcome models, System testing, Introduction to sub-system testing, From functional to system aspects of testing, System testing, Introduction to system testing, Scenarios development, System testing, Use-cases for testing, Specification-based testing, Open issues on software testing
Text Book/s	Paul Jorgensen, Software Testing, A Craftsman's Approach, 4th Ed. CRC Press, Taylor and Francis Group, 2015
Reference Material	Bernard Homes, Fundamentals of Software Testing, ISTE, Wiley, 2012 Software Engineering, "Ian Sommerville, 9th Edition, Addison Wesley, 2011