

Course/Module	Session/Activity/Topics
Overview to Testing and Types of Testing	<p>To introduce Need & Importance of Software Testing Objectives of Testing, Software Testing Life Cycle & Software Testing Process Overview</p> <p>To introduce Static Testing, Dynamic Testing Types, Levels of Testing, Unit Testing, Integration Testing, System Testing & Acceptance testing</p>
Black box Testing Technique and White Box Testing Technique	<p>To provide orientation on Introduction to Black box testing, Methods of Black box Testing, Advantages of Black box Testing , Disadvantages of Black box Testing</p> <p>To introduce White Box Testing, White Box Testing Techniques, Data Flow Testing, Advantages of White Box Testing</p>
Understanding of Requirements & Traceability Matrix and Practicals, Test Planning and Test Case Design and practicals	<p>To introduce What is Software Requirements: Definition, Requirements Engineering (RE), RE Process, Flow diagram Types of Requirements Requirements documents, Definition, Types of Requirements documents Requirements Management: Definition, Tools Requirement Traceability Matrix, Challenges in managing Software Requirements Requirements Change Management: Definition, Tools Change Control Management</p> <p>Sample Software Requirements and Traceability matrix will be provided and the students to update Traceability matrix based on the requirement.</p> <p>To introduce test planning activities of Life Cycle (STLC) Requirement analysis and its types Requirement verification What is a Test Strategy? Test Strategy – Concepts and Components Test Strategy – Risk Analysis and Mitigation Plan What is Test Plan? Pre-requisites for a Test Plan How to write a good Test Plan? Test Plan components and benefits Test Plan - In-Scope & Out of Scope Testing Test Plan - Entry and Exit Criteria Test Plan - Suspension and Resumption criteria To introduce Test Design Process for building a Test Design Pre-requisite of Test Case Design Test Case Activity Test Case Components Sample requirement and test case template will be provided for students to create test cases based on the requirement provided</p>

Test Data Preparation	<p>To introduce Roles of Data in functional Testing Problem caused by Poor Test Data Classification of Test Data types Test Data preparation and organizing the data Data Load and Data Maintenance</p>
Test Execution & Test Execution - Practical's	<p>To introduce Software Testing Life Cycle Test Environment Test Data Test Execution – Major Techniques / Approaches Test Case Execution Process Test Execution Report Sample requirement and test case template will be provided students with sample application to execute the test cases that are already created</p>
Defect Management, Test Closure and Metrics a	<p>To introduce What is a Defect? Difference between Defect, Bug, Error and Fault? Defect Management process Defect Prevention Defect Discovery Defect Resolution Defect Tracking (or) Managing Issues Examples Case study</p> <p>To introduce - A Post project Analysis Collection of Data Documentation of “Test Activities” Deriving Reports Finalizing and Archiving Testware. Contributing towards the improvement of test maturity</p> <p>To introduce What is Metrics, Why we need Metrics? Key Testing Metrics with examples</p>
Model Based Testing (MBT) and Data Centric awareness	<p>To introduce Model Based Testing (MBT) iD2E - A year in review Demo of Integrated Design to Execution</p> <p>To introduce Data Centric Testing BI and Dataware house ETL Process and its Testing: Types of ETL Testing Types of Database Testing:</p>
Introduction to Test Automation Introduction to Selenium IDE and Practical's -	<p>To introduce the approach for Automation Testing</p> <p>To introduce Features of</p>
Selenium Web Driver basics:	<ul style="list-style-type: none"> · try catch exception · Methods · Inheritance · Polymorphism · Different browser functions · Excel automation · Other Functions
Practical's - Selenium WebDriver	Time provided for students to practice / hands on
Practical's - Selenium WebDriver	



Mini Project	Sample project specification will be provided to Students covering Selenium WebDriver
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