**UFT Automation Course Syllabus**

**Module 1: Introduction to Automation Testing & UFT**

* Basics of Software Testing
* Manual vs Automation Testing
* Overview of Test Automation Tools
* Introduction to UFT / QTP
* UFT Features & Architecture
* Installing UFT and Add-ins

**Module 2: UFT IDE and Basic Concepts**

* UFT User Interface (Menus, Toolbars, Panes)
* Recording and Running Tests (Normal, Analog, Low-level Recording)
* Understanding Actions (Reusable, Non-Reusable)
* Working with Data Tables (Global and Local)

**Module 3: VBScript Essentials**

* Introduction to VBScript (the scripting language used in UFT)
* Variables, Data Types, Operators
* Conditional Statements (If, Select Case)
* Loops (For, While, Do Until)
* Functions and Subroutines
* Arrays and Dictionaries
* Error Handling (On Error Resume Next)

**Module 4: Object Identification**

* Object Properties and Object Spy
* Smart Identification
* Ordinal Identifiers (Index, Location)
* Descriptive Programming (Static and Dynamic)
* Managing Object Repository (Shared and Local Repositories)

**Module 5: Working with UI Elements**

* Handling Buttons, Text Boxes, Lists, Checkboxes, Radio Buttons
* Working with Tables and Web Tables
* Working with Images, Links, and Frames
* Synchronization (Wait, Sync, Exist, WaitProperty)
* Parameterization using Data Tables

**Module 6: Modular Test Design**

* Creating and Using Actions (Call to Copy, Call to Existing)
* Action Parameters and Data Sharing
* Reusable Components Design
* Creating Function Libraries
* Driver Scripts and Test Batches

**Module 7: Data-Driven Testing**

* Importing Data from Excel and Data Tables
* DataTable Methods and Manipulation
* Writing Data-Driven Test Cases
* Using Environment Variables

**Module 8: Checkpoints and Output Values**

* Standard Checkpoints
* Text and Bitmap Checkpoints
* Database Checkpoints
* XML and File Content Checkpoints
* Output Values and their Usage

**Module 9: Error Handling and Debugging**

* Types of Errors (Syntax, Runtime, Logical)
* Debugging Tools (Breakpoints, Step Into, Step Out, Watch)
* Reporter Utility
* Custom Error Logging

**Module 10: UFT Frameworks**

* Introduction to Test Automation Frameworks
* Linear, Modular, Data-Driven, Keyword-Driven, and Hybrid Frameworks
* Creating a Hybrid Framework from Scratch
* Folder Structure and Best Practices

**Module 11: Integration with Other Tools**

* UFT with ALM / Quality Center
* Version Control with Git (optional)
* Continuous Integration with Jenkins (optional)
* Working with UFT Developer and UFT One (advanced topics)

**Module 12: Real-Time Project & Interview Prep**

* Test Case Design for a Real Web or Desktop Application
* Automation Planning and Execution
* Defect Logging and Reporting
* Resume Building and Interview Questions