**Topics under Selenium Syllabus**

This Selenium syllabus consists of following topics. They are as follows:

1. Introduction to [Automation Testing](https://www.scientecheasy.com/2020/07/selenium-automation-testing.html/)  
2. Introduction to [Selenium](https://www.scientecheasy.com/2020/07/selenium-tutorial.html/)

**Basic Selenium WebDriver Topics**

3. [Download and Installation of Selenium WebDriver](https://www.scientecheasy.com/2020/07/selenium-webdriver-download.html/)  
4. How to create first Selenium Webdriver Script using Java programming language  
5. Selenium WebDriver commands, Navigation commands, WebElement commands  
6. Locators in Selenium: Id, name, className, tagName, linktext, partialLinkText, CSS Selector, Xpath locator.

7. Find Element and FindElements in Selenium WebDriver  
8. Select class in Selenium, Select methods under Select class.  
9. How to select Checkbox and Radio Button in Selenium WebDriver  
10. How to Click on Image in Selenium Webdriver

11. How to select value from DropDown using Selenium Webdriver  
12. How to locate elements by Link Text & Partial Link Text in Selenium Webdriver  
13. Action Class in Selenium Webdriver: Mouse click and Keyboard events  
14. How to Upload and Download a file using Selenium Webdriver  
15. XPath in Selenium WebDriver: from basic to Dynamic XPath

16. Alert Interface in Selenium  
17. How to handle Pop up window in Selenium WebDriver  
18. JavascriptExecutor interface in Selenium  
19. How to Scroll up and down in Selenium  
20. How to handle Web Table in Selenium WebDriver

21. Handling Dynamic Web Tables Using Selenium WebDriver  
22. Desired Capabilities in Selenium WebDriver  
23. How to find all broken links using Selenium Webdriver  
24. Gecko (Marionette) Driver Selenium: Download, Install, Use with Firefox  
25. Iframe in Selenium: Switch to Iframe

**TestNG Syllabus**

1. [TestNG Framework Tutorial | Download & Installation](https://www.scientecheasy.com/2019/04/testng-tutorial.html/)  
2. How to write first TestNG Test Case  
3. TestNG Annotations  
4. TestNG Groups  
5. How to set Priority of Test Cases in TestNG  
  
6. TestNG @Test Annotation & Supported Attributes  
7. How to create and run TestNG XML file in Eclipse  
8. Parameterization in TestNG using TestNG XML file  
9. DataProvider in TestNG | Example Scenarios  
10. How to run multiple tests using TestNG XML file

11. Parallel Test Execution in Selenium using TestNG  
12. TestNG Assert in Selenium | Assert Commands  
13. TestNG Listeners  
14. How to execute failed Test Cases in TestNG  
15. TestNG Report Generation in Selenium WebDriver  
16. Customize, PDF and Email TestNG Reports in Selenium WebDriver  
17. Cross Browser Testing in Selenium

**Apache POI API Topics**

1. What is [Apache POI API](https://www.scientecheasy.com/2018/12/apache-poi-tutorial.html/), Classes and Interfaces in Apache POI  
2. Download and installation of POI Jar files  
3. How to read Excel file using POI API  
4. How to write Excel file using POI API  
5. Difference between JXL and POI

**Selenium Framework Topics**

1. Page Object Model (POM) in Selenium  
2. Page Factory in Selenium | @FindBy, initElements Method  
3. [Selenium Framework](https://www.scientecheasy.com/2019/12/selenium-framework.html/): Data-driven framework, Keyword driven framework, and Hybrid framework  
4. Creating Object Repository in Selenium using Properties file and XML

**Advanced Selenium WebDriver Topics**

1. Selenium Grid: Hub and Node  
2. Maven and Jenkins integration with Selenium  
3. Database Testing using Selenium  
4. How to take Screenshot in Selenium WebDriver  
5. Log4j with Selenium: Download, Installation, Use, and Example

6. Selenium Headless Browser Testing: HTMLUnitDriver and PhantomJS  
7. Robot Class in Selenium Webdriver  
8. How to use AutoIT with Selenium Webdriver: File Upload Example  
9. How to handle SSL Certificate using Selenium WebDriver  
10. How to handle AJAX call in Selenium Webdriver

11. How to use IntelliJ IDEA & Selenium Webdriver  
12. Flash Testing with Selenium WebDriver  
13. How to Generate XSLT Report in Selenium Webdriver  
14. Github Integration with Selenium  
15. Cookies Handling in Selenium WebDriver

16. SoapUI with Selenium for Web Service Testing  
17. How to create Firefox profile in Selenium WebDriver  
18. Cucumber (BDD Framework)  
19. How to Drag and Drop in Selenium WebDriver (EXAMPLE)  
20. Implicit, Explicit, and Fluent Wait in Selenium WebDriver  
21. Selenium Proxy Authentication using Webdriver  
22. List of Exception occurring in Selenium

**Selenium IDE Syllabus/Topics**

1. Download and Installation of Selenium IDE for Firefox  
2. What is Selenium IDE?  
3. How to use Selenium IDE with Scripts and Commands (Assert, and Verify)  
4. How to verify element present, waitFor, and wait in Selenium IDE  
5. How to store Variables, Echo, Alert, PopUp handling in Selenium IDE  
6. Breakpoint and Start point in Selenium IDE  
7. Maximize browser in Selenium  
8. Refresh Page using Selenium Webdriver

♦ Preparation for Selenium Interview Questions  
♦ Live Selenium Project: Banking Domain  
♦ Live Ecommerce Project: Selenium Automation

Hope this **Selenium syllabus** has covered all important topics under Selenium and TestNG sections that will have helpful to understand how to prepare for Selenium automation testing.

Besides Selenium syllabus, knowledge of basic core java is also a must. Therefore, look at a glance core java syllabus.

**Core Java Syllabus**

1. [Classes and Objects in Java](https://www.scientecheasy.com/2020/07/java-classes-objects.html/)  
2. [Data types in Java](https://www.scientecheasy.com/2020/06/data-types-in-java.html/)  
3. [Variables in Java](https://www.scientecheasy.com/2020/05/variables-in-java.html/)  
4. [Package](https://www.scientecheasy.com/2020/06/packages-in-java.html/)  
5. Constructor

6. Methods  
7. Access Modifiers in Java  
8. Static Keyword in Java  
9. Final keyword in Java  
10. Super and this Keyword

11. OOPs concepts in Java: Encapsulation, Inheritance, Abstraction, and Polymorphism  
12. Exception Handling in Java  
13. Reflection  
14. Arrays  
15. String, StringBuffer, and String Builder

16. Collection Framework  
17. Input-Output Stream  
18. Agile Methodology  
19. Database (MySQL)  
20. Garbage Collection