



**Beyond Curriculum Training**  
**On**  
**"Programming Foundations with JavaScript, HTML and CSS"**



**Date: 16/06/2020 to 27/06/2020**

Organized by  
**Narula Institute of Technology**

81, Nilgunj Road, Agarpara,  
Kolkata – 700 109

**Training Overview**

This course offers an additional value in foundational programming concepts (e.g., functions, for loops, conditional statements) and how to solve problems like a programmer. In addition, it explains the basic web development to build web pages using HTML, CSS, JavaScript.

**Training Objective**

To provide the introduction level familiarity with all the 3 brick-and-mortar website building tools HTML, CSS, JavaScript.

**Course Outcomes**

After completion of this course students will be able to

- Think critically about how to solve a problem using programming.
- Write JavaScript programs using functions, for loops, and conditional statements.
- Use HTML to construct a web page with paragraphs, divs, images, links, and lists.
- Add styles to a web page with CSS IDs and classes.
- Make a web page interactive with JavaScript commands like alert, onClick, onChange, adding input features like an image canvas, button, and slider.

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## **Course Content**

### **Module 1: Introduction**

*Basics of programming*

*Form building web pages*

*Writing programs with JavaScript*

*Interactive web pages*

### **Module 2: Designing a Web Page with HTML and CSS**

*Basics of HTML and CSS to design a web page.*

### **Module 3: Algorithms and Programming Concepts**

*Developing an Algorithm*

*A Seven Step Approach to Solving Programming Problems*

*Variables*

*Methods*

*Functions*

*For Loops*

*Conditional Execution*

*Translating to Code*

*Thinking Critically about the Program*

*Finding Bugs in Code*

### **Module 4: JavaScript for Web Pages**

*Buttons with Divs*

*Changing Pages Interactively*

*Using HTML5 Canvas*

*Inputs and Events*

*Upload and Display an Image*

*Convert Image to Grayscale*

*Moving to CodePen.*

### **Module 5: MiniProject: Image Filters on the Web**