

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's

**New Arts, Commerce, and Science College  
Ahmednagar (Autonomous)**

(Affiliated to Savitribai Phule Pune University, Pune)



**National Education Policy (NEP)  
Choice Based Credit System (CBCS)**

**Programme Framework and Syllabus for**

**Skill Enhancement Courses:**

**BCA(Science)**

कौशल्य वृद्धी अभ्यासक्रमः

**BCA(Science)**

**Implemented from**

**Academic Year 2024-25**

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's  
**New Arts, Commerce and Science College, Ahmednagar**  
**(Autonomous)**

**Introduction of Skill Enhancement Courses: BCA(Science)**

The syllabus has been designed such that the knowledge of fundamental concepts, advanced technologies and specific skills will be developed among students. To understand advanced web technologies students should first understand the basic concepts of Web technology like HTML, CSS etc. In the first year of the B.C.A science course, the basic concepts of along with the required theoretical understanding have been covered. During the second year, the syllabus has been designed such that the knowledge of fundamental concepts, advanced technologies and specific skills will be developed among students.

In the first year of the B.C.A science course, the basic concepts of Web Technology with the required theoretical understanding have been covered. During the second year of the Course, students will learn about the technology related to front end web development.

Web Development is the practice of developing websites and web apps that live on the internet. At the beginning by learning HTML basics — an important foundation for building and editing web pages. It's a fundamental part of every web developer's toolkit. HTML provides the content that gives web pages structure, by using elements and tags, you can add text, images, videos, forms, and more. Learning HTML basics is an important first step in your web development journey and an essential skill for front- and back-end developers. Students will also learn the concepts of CSS in the First Year.

CSS, short for Cascading Style Sheets, is a style sheet language used to style websites. Colors, fonts, and page layouts for a site can all be managed using CSS. The more comfortable students are with CSS, the better equipped they will be to create an appealing website.

Also, students will be acquainted with Javascript in the first year. JavaScript is a fun and flexible programming language. It's one of the core technologies of web development and can be used on both the front-end and the back-end. While HTML and CSS are languages that give structure and colors to web pages, JavaScript makes them interactive and come alive.

During the Second year they will learn the concepts of Advance CSS, Bootstrap and JQuery. JQuery is a lightweight, "write less, do more", JavaScript library. The purpose of JQuery is to make it much easier to use JavaScript on your website. JQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.

During the semester IV students will get familiar with PHP. PHP is an open-source, server-side programming language that can be used to create websites, applications, customer relationship management systems and more. It is a widely-used general-purpose language that can be embedded into HTML.

The Skill enhancement course will help the students to expertise in the use of HTML, CSS, and JavaScript to create, style, and make interactive web pages. Also learn a back-end programming language, like PHP and use SQL to communicate with databases.

**Skill Enhancement Courses: Framework and Course Distribution:  
Subject: BCA(Science)**

Sr. No.	Year	Semester	Level	Course Type	Course Code	Title	Credits
1.	I	II	5.0	SEC-01	SEC-BCA 01T	Web Technology I	02
2.	II	III	5.5	SEC-02	SEC-BCA 02P	Web Technology II	02
3.	II	IV	6.0	SEC-03	SEC-BCA 03P	Web Technology III	02
<b>Total</b>							<b>06</b>

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's  
**New Arts, Commerce and Science College, Ahmednagar**  
**(Autonomous)**

**Skill Enhancement Courses: BCA(Science)**

Title of the Course: Web Technology I								
Year: I				Semester: II				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
<b>SEC-01</b>	<b>SEC-BCA 01P</b>	00	02	02	30	15	35	50

**Learning Objectives:**

1. Understanding the structure of HTML documents.
2. Incorporating multimedia elements such as images, audio, and video.
3. Implementing forms for user input..
4. Styling HTML elements using CSS for layout, typography, colors, and backgrounds
5. Understanding the basics of programming concepts such as variables, data types, operators, and control structures.

**Course Outcomes (Cos):After completion of the course student will be able to :**

1. Achieve proficiency in using various HTML tags to define document structure, text formatting, links, images, and multimedia elements.
2. Design Static and dynamic websites
3. Acquire knowledge of debugging techniques.
4. Implement best practices for writing maintainable JavaScript code.

**Detailed Syllabus:**

**SECTION – I :HTML(Hypertext markup Language)**

**Assignment 1:**

Understanding basic theory of HTML.

HTML tags on text arrangement, style, color. Design a page which uses the basic tags like head, title, heading etc.

**Assignment 2: Basic HTML Display Features**

Sample assignments:

Create a page that includes the following elements.

Within the head section create a web page title (displayed in title bar of browser window):  
 My Favorite Things

Use a color for the background for the body.

A centered heading (use the largest heading size) of: My Favorite Things (remember to turn off centering!)

Include a horizontal rule underneath the heading that is colored, centered, 75% of the

screen's width and has a size of 8.

□

Include the following introductory paragraph, filling in the blanks with the appropriate information for yourself.

Use a font size of 4 and a font face of Comic Sans MS: My name is \_\_\_\_\_ and I am a \_\_\_\_\_ at New Arts, commerce and Science college.

This web page lists my favorite foods, favorite television shows.

Remember to turn off the paragraph!

Insert another blank line (a line break) after the paragraph.

Using a heading size of 2, key the following heading: My Favorite Foods.

Using an unordered list, include five of your favorite things to eat. Use a colored font with a size of 4, with a font face of your choice

Insert another blank line after the list.

Using a heading size of 2, key the following heading: My Favorite TV Shows.

Using an ordered list, list your top five favorite television shows. Use the same font settings as the unordered list.

Save the page as HTML1.html

### **Assignment 3:**

Create a web page including HTML image tag and anchor tag.

### **Assignment 4: Form**

Design a form using HTML tags

### **Assignment 5: Tables**

Create a web page including HTML table tag

### **Assignment 6 : Frameset**

Create a frameset

### **Assignment 7: Multiple Webpages**

Create three or more web pages, use all the tags.

### **Assignment 8: Create a website**

Create a website of minimum 10 pages on any topic.

## **SECTION – II CSS (Cascaded Style Sheets)**

**Assignment 1:** Fundamentals concepts of CSS.

**Assignment 2:** Assignments on use of Internal CSS

**Assignment 3:** Assignments on use of Inline CSS

**Assignment 4:** Assignments on use of External CSS

**SECTION – III JavaScript**

**Assignment 1: Understanding the fundamental concepts:**

Variables, Operators, and Data Types

Branching, Loops, and Functions etc

**Assignment 2:**

Assignment on control flow

**Assignment 3:**

Assignment on functions

**Assignment 4:**

Assignment on arrays

**Assignment 5:**

Assignment on strings

**Suggested Readings/Material:**

Laboratory handbook prepared by the college