

# HTML & JS Essentials with Professional Email Template Design

Duration: 5 days

## Day 1 — HTML Foundations & Content Structuring

### Topics:

- Introduction to web technologies & ecosystem
- Difference between HTML, CSS, and JavaScript
- HTML syntax rules, nesting, and case sensitivity
- HTML document structure (<!DOCTYPE>, <html>, <head>, <body>)
- Common elements: headings, paragraphs, line breaks, horizontal rules
- Text formatting: bold, italics, superscript, subscript, special characters
- Links: absolute vs relative paths, mailto links, target attribute, fragment identifiers
- Images: file formats, alt text best practices, linking images, responsive images (HTML-only)
- Lists: unordered, ordered, definition lists, nesting lists
- Semantic HTML tags: <header>, <footer>, <main>, <section>, <article>, <aside>
- Accessibility fundamentals: ARIA attributes overview (no deep CSS styling)

### Labs:

- Create a **semantic company profile page** with headings, text, links, and images.
  - Add internal navigation using anchor links.
  - Create a **nested list-based site map** for a fictional website.
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## Day 2 — HTML Forms, Tables & JavaScript Basics

### Topics:

- HTML forms: <form> attributes (action, method, novalidate)
- Form controls: text, email, number, date, radio buttons, checkboxes, select menus, textareas
- Grouping form controls: <fieldset> and <legend>
- Using default HTML5 validation attributes: required, pattern, min, max
- HTML tables: <table>, <thead>, <tbody>, <tfoot>, <tr>, <td>, <th>
- Introduction to JavaScript: where and how to embed it
- Variables (let, const), data types, operators
- Arrays and objects (basic)
- Functions: declaration, parameters, return values
- JavaScript built-in objects: Math, Date, String

### Labs:

- Create a **contact form** with multiple input types and HTML validation attributes.
  - Build a **product price list** table for an online store.
  - Write JS to calculate the total price for a given set of quantities from a table.
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## Day 3 — DOM, Events & JS Validation

### Topics:

- DOM tree concept and element selection (getElementById, querySelector, querySelectorAll)
- Reading and modifying text/content (innerHTML, textContent)
- Reading and modifying attributes (setAttribute, getAttribute)
- Adding/removing HTML elements dynamically (appendChild, removeChild)
- Event handling: onclick vs addEventListener
- Keyboard events, form events, and timers (setTimeout, setInterval)
- HTML form validation with JavaScript
- Using regex for pattern matching (email, phone, custom formats)
- Preventing invalid submissions and displaying custom error messages

### Labs:

- Build an **interactive to-do list**: add, delete, and mark items as done.
  - Create a **real-time form validation script** that checks email format and password strength.
  - Enhance the contact form from Day 2 to validate all fields with JS before submission.
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## Day 4 — HTML Email Fundamentals

### Topics:

- Differences between web HTML and email HTML
- Why CSS is limited in email and the role of HTML attributes
- Table-based layouts: <table>, <tr>, <td> for structure
- Creating multi-column layouts with tables
- Image hosting & using absolute paths
- Creating “bulletproof” buttons using table cells + links
- Preheader text best practices
- Safe fonts and alt text for images
- CAN-SPAM & GDPR compliance considerations
- Testing emails in different clients

### Labs:

- Create a **single-banner promotional email** using only HTML tables.
  - Add a **clickable button** inside the email using a table cell and a link.
  - Test the email design in an online email preview tool.
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## Day 5 — HTML Email Templates & Automation

### Topics:

- Modular email design (header, body, footer sections)
- Personalization with merge tags ({{first\_name}}, {{cta\_url}})
- Linking email templates to analytics with UTM tags
- Dark mode considerations without CSS

- Creating transactional emails (order confirmations, password resets)
- Using JavaScript outside email to **generate email HTML** (templating approach)
- Exporting HTML for ESPs (Email Service Providers) like Mailchimp, SendGrid
- Final project planning and checklist for email best practices

**Labs:**

- Build a **modular newsletter template** with header, body, and footer.
- Create a **transactional email** (e.g., order confirmation) with placeholders for dynamic data.
- Write a JS script that takes JSON input and generates the final HTML email for upload to an ESP.
- Final project: Complete both a **promotional** and **transactional** email, test in two clients, and validate links/images.