Course Syllabus

Next-Gen Engagement Program – Batch II

Course Tittle   :   Web Development
Timeline   :   July 28 – August 31 2025 (5weeks)
In-class hours   :   3h/week (15h in total)
Prepared by   :   NEXT-GEN Engagement Team

1. Course description

Welcome to Web Design Fundamentals!

This course introduces students to the core principles of designing and building modern, user-friendly websites. Learners will explore essential topics such as UI/UX design, HTML, CSS, and responsive frameworks like Bootstrap. Through hands-on activities and practical projects, students will gain the confidence to design web pages from scratch and bring them to life on the web using GitHub.

Whether you're aiming to become a front-end developer or simply understand how websites work, this course provides a creative and technical foundation to get you started.

2. Course Learning Outcomes

By the end of the course, you should gain the following outcomes:

Knowledge
- Understand the fundamental concepts of web design and UI principles
- Recognize the structure and semantics of HTML and CSS
- Explain the benefits of responsive design and the role of frameworks like Bootstrap
- Describe how GitHub supports collaborative web development
Skills
- Design and prototype a landing page using Figma
- Build multi-page websites using semantic HTML and CSS
- Implement interactive, responsive layouts using Bootstrap
- Use GitHub to version control and publish web projects
Attitudes
- Demonstrate creativity and attention to detail in design
- Collaborate effectively and follow good coding practices

| | | - Show curiosity and initiative in exploring design and development tools |
| | | - Maintain a problem-solving mindset and continuous learning attitude |

3. Course sessions

What we will go through each week

W1: Getting Started		
S1	Learning	- A short introduction to UI design: what does a good UI look like? - A short introduction to web design: what is it? And what will this course cover? - Introduction to github: what is github? Why is github important?
S2	Practice	- Design one landing page using figma, the design should follow the good UI principles (link the figma design with the final project of the course), introduction to figma - Create a github account, how to use github? (push code into repo): in this practice let them push any kind of file it does not have to be .html or .css
W2: Basic HTML		
S1	Learning	- What is HTML? Structure and purpose - Basic HTML tags - Lists and links - Semantic HTML: importance and examples
S2	Practice	- Create a simple personal webpage using only text elements (headings, paragraphs, lists) - Add hyperlinks and images - Practice using GitHub: push the HTML file into a repository
W3: Advanced HTML		
S1	Learning	- Forms such as <form>, <input>, <label>, <textarea>, <select>, <button> - Tables such as <table>, <tr>, <td>, <th>, <thead>, <tbody> - Embedding media such as <audio>, <video>, <iframe> - HTML layout elements such as <div>, <span>, <section>, <article>, <nav>, <footer>
S2	Practice	- Create a form (e.g., sign-up form) with various input types - Build a table displaying structured data (e.g., student scores) - Embed a YouTube video and a Google Map using <iframe>

W4: Basic CSS		
S1	Learning	- What is CSS? Syntax and selectors - Inline vs internal vs external CSS - CSS properties: color, font-family, font-size, margin, padding, border - Box model and element positioning
S2	Practice	- Style your previous HTML project (personal page or form) using CSS - Practice with color schemes, typography, spacing, and layout - Push updated styled webpage to GitHub
W5: Introduction to Bootstrap		
S1	Learning	- What is Bootstrap and why use it? - Bootstrap structure: container, grid system, rows and columns - Common components: navbar, buttons, cards, carousel - Utility classes for spacing, alignment, and responsiveness
S2	Practice	- Recreate your Figma landing page design using HTML + Bootstrap - Use Bootstrap components to enhance layout and interactivity - Finalize your project, push to GitHub, and present/demo your webpage

Note: The weekly content is flexible and may be adjusted based on students' performance, engagement, and learning pace to ensure the best possible learning experience.

4. Resources

Course books

- HTML and CSS: Design and Build Websites by Jon Duckett
- Don't Make Me Think by Steve Krug (UI/UX focus)
- Learning Web Design by Jennifer Robbins

Online Resources

- MDN Web Docs (HTML/CSS)
- W3Schools HTML/CSS/Bootstrap
- Bootstrap Official Documentation
- Figma Help Center
- GitHub Docs

Tools

- Figma – for UI/UX prototyping
- VS Code – for coding HTML/CSS
- GitHub – for version control and code hosting

- Live Server extension (for VS Code) – for previewing changes in real-time
- CodePen or JSFiddle – for quick testing and sharing of front-end code