COURSE SYLLABUS

Full-Stack Web Development Certificate (Self-Paced)

Build the skills and know-how to step into a Full-Stack Developer role and meet the rising demand for professionals who can create and maintain web applications. This project-driven course teaches you to code websites from scratch, and you'll walk away with a portfolio of working web applications ready to share with potential employers.

> Group classes in Live Online and onsite training is available for this course. For more information, email corporate@nobledesktop.com or visit: https://www.nobledesktop.com/certificates/full-stack-development-self-paced

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Course Outline

This package includes these courses

- Web Development with HTML & CSS Course Online (Self-Paced) (18 Hours)
- Advanced HTML & CSS (Self-Paced) (18 Hours)
- Flexbox, Grid, & Bootstrap (Self-Paced) (12 Hours)
- Front-End Tools & Portfolio (Self-Paced) (18 Hours)
- JavaScript for Front-End (Self-Paced) (18 Hours)
- JavaScript Programming Bootcamp (Self-Paced) (120 Hours)
- JavaScript Development with Node, Express, & MongoDB (Self-Paced) (96 Hours)
- React Development Bootcamp (Self-Paced) (96 Hours)
- Entering the Web Development Industry (Self-Paced) (24 Hours)
- Web Development Labs (Self-Paced) (0 hours)

Attend the SQL Bootcamp or the WordPress Bootcamp for free as part of this certificate. Choose your date after you register for the program.

- SQL Course Online (Self-Paced)
- WordPress Bootcamp (Self-Paced)

Web Development with HTML & CSS Course Online (Self-Paced)

Learn how to code and style websites from scratch using HTML and CSS. This course covers everything from structuring content and applying styles to making pages responsive and publishing them online.

- Structure webpages with HTML, using semantic elements for better organization and accessibility

- Style content with CSS, including fonts, colors, backgrounds, and spacing for polished designs
- Implement responsive design techniques with media queries and CSS Grid/Flexbox
- Utilize browser developer tools to inspect and refine code in real-time
- Upload and publish websites using FTP for live deployment
- Work on hands-on projects to build a strong foundation in front-end web development

Advanced HTML & CSS (Self-Paced)

Strengthen your CSS skills by mastering advanced styling, layout control, and interactive features. Learn to build visually engaging webpages using modern techniques such as animations, responsive images, and custom properties.

- Master advanced CSS concepts, including positioning, complex selectors, relative sizing units (px, em, rem), and the calc() function
- Create sophisticated visual styles using multiple background images, RGBA transparency, gradients, shadows, and more
- Work with SVG graphics in multiple ways and learn how to style them directly with CSS
- Build responsive images using img srcset and the picture element for optimized performance
- Use CSS variables to write cleaner, more flexible, and maintainable code
- Create mobile-friendly off-screen navigation menus using only CSS
- Add motion and interactivity with CSS transitions and transforms

Flexbox, Grid, & Bootstrap (Self-Paced)

Learn how to use CSS Flexbox and Grid to create responsive webpage layouts that adapt to different screen sizes. This course covers modern layout techniques and introduces Bootstrap for rapid page development.

- Use CSS Flexbox to align and distribute webpage content efficiently
- Master CSS Grid for advanced layout structures and responsive design
- Implement Bootstrap's grid system and components for faster development
- Reorder, size, and align elements dynamically with Flexbox and Grid
- Create responsive navigation bars, pricing grids, and image galleries
- Apply best practices for flexible, scalable, and visually appealing web layouts

Front-End Tools & Portfolio (Self-Paced)

Learn how to turn a webpage design into fully functional code while mastering essential front-end development tools. This course covers Git, GitHub, Emmet, and Visual Studio Code to streamline coding and collaboration.

- Build a coding portfolio by developing a project from scratch with expert guidance
- Learn Git fundamentals to track code changes, revert versions, and manage repositories
- Use GitHub for collaboration, including pushing, pulling, cloning, and handling merge conflicts
- Master Visual Studio Code shortcuts and features to improve workflow and efficiency
- Utilize Emmet coding shortcuts to speed up HTML and CSS development
- Gain hands-on experience in real-world coding workflows and best practices

JavaScript for Front-End (Self-Paced)

Learn how to enhance your webpages with interactive elements and animations using JavaScript and GreenSock (GSAP). This course covers JavaScript fundamentals and dynamic motion design techniques for creating engaging web experiences.

- Write JavaScript code to add interactivity, handle user events, and manipulate webpage elements
- Use JavaScript libraries to quickly implement common functionalities like slideshows and tabbed panels
- Animate webpage elements with GreenSock (GSAP), the industry-standard framework for web animation
- Create smooth scrolling effects, parallax animations, and interactive transitions
- Apply animations to text, images, and SVG graphics for visually dynamic designs
- Build a strong foundation in JavaScript and GSAP to create interactive, engaging web projects

JavaScript Programming Bootcamp (Self-Paced)

Get a strong grasp on the fundamentals of JavaScript programming so you can build interactive web applications. This hands-on course walks through key programming concepts, DOM manipulation, APIs, and object-oriented programming.

- Pick up JavaScript fundamentals, including variables, conditional logic, loops, and arrays.
- Shape the DOM by dynamically updating content, handling events, and adjusting CSS.
- Work with functions, callbacks, and arrow functions to write cleaner, more efficient code.
- Tap into JavaScript's built-in array and string methods for processing and organizing data.
- Pull in and display real-time data using APIs, JSON parsing, and asynchronous programming.
- Dig into object-oriented programming (OOP) principles to create reusable, scalable code.

JavaScript Development with Node, Express, & MongoDB (Self-Paced)

Learn how to create and host full-stack web applications using JavaScript along with Node.js, Express, and MongoDB. This course covers back-end development, API creation, and database management for today's web applications.

- Work with Node.js to build server-side applications, handle file execution, and manage input/output operations.
- Use npm (Node Package Manager) to install and keep track of dependencies for scalable projects.
- Develop RESTful APIs with Express.js, putting together efficient routing and middleware functions.
- Set up and configure MongoDB to store, query, and manage structured data.
- Put authentication and security measures in place for safe database connections.
- Fine-tune application performance through advanced query filtering, pagination, and data population.

React Development Bootcamp (Self-Paced)

Learn how to create dynamic, interactive web applications using React and Node.js. This course walks through the core concepts of React, state management, API integration, and cloud deployment for full-stack development.

- Get a handle on React fundamentals, including components, props, state, and hooks.
- Use React Router to manage navigation and put together seamless single-page applications.
- Bring in databases and APIs to build fully functional, data-driven applications.
- Set up CRUD operations to manage and shape application data.
- Deploy React applications to the cloud through AWS and alternate deployment stacks.
- Look into advanced topics like AI integration and mobile development with React.

Entering the Web Development Industry (Self-Paced)

Build the skills and know-how needed to land a job as a web developer. This course covers portfolio development, interview preparation, and networking strategies to help you break into the tech industry.

- Put together a professional web development portfolio that highlights your skills and projects.
- Practice working through coding challenges and algorithms that come up often in technical interviews.
- Shape a networking strategy for connecting with tech recruiters and industry professionals.
- Learn how to present your skills and experience clearly and effectively during job interviews.
- Get a real feel for the day-to-day responsibilities and expectations placed on web developers.
- Prepare for actual job applications through hands-on workshops and expert guidance.

Web Development Labs (Self-Paced)

This hands-on, project-focused course is designed to equip you with the essential skills to create functional, visually appealing, and professional websites and web applications. Whether you're aiming to start a career in web development or elevate your existing skill set, this course provides the tools and practical experience needed to succeed.

- Code-along to book (class-style)
- On-your-own coding challenges (but with kickstarter code/scaffolding)
- Job interview-style challenges (harder, no scaffolding, ok-better-best solutions)
- Debugging code (errors and/or flaws in logic that make it not work)
- Targeted drills: "reps" to build specific skills