



Front-End Web Developer Certificate Syllabus

WESTERN GOVERNORS UNIVERSITY

Front-End Engineering: JavaScript and React

Hello, and welcome!

Consider the many different websites you visit every day. You might use them for work, shopping, connecting with friends, or entertainment. You may not notice when the website design is seamless and easy to use, but you will certainly find yourself looking for an alternative if the website is difficult to navigate and unresponsive. The art and science of front-end web development can lead to two outcomes: frustration or satisfaction. A skilled front-end web developer aims to craft a user interface that is accessible and effortless. The goal is to captivate and delight the user, ensuring that they remain loyal and return to the website time and again. In this certificate, you will explore the fundamentals of HTML, CSS, JavaScript, and so much more. And with the skills you will gain, you'll be able to take your web development career to the next level!

We invite you to take a minute to learn about the certificate by reviewing the information that follows. This way, you will be better able to understand the expectations of the certificate as a whole. Then you can determine how to manage your time and efforts as you navigate through it.

You are in the right place. You belong here. You can do this!

Certificate Description and Competencies

WHAT TO EXPECT

In this certificate, you will work through four CodeSignal learning paths. And each learning path is broken into multiple courses, covering multiple learning objectives. These will teach you the skills needed to develop seamless and accessible websites for any organization.

Throughout these courses, you will find readings, videos, and a variety of interactive elements in the CodeSignal learning platform. These include practices and interactions with an AI tutor to help deepen your understanding of the content. Engaging with these activities reinforces new learning. It also complements the knowledge you bring to this area of study.

This course covers the following competencies:

1. The student builds attractive, usable, and interactive websites using HTML, CSS, and JavaScript.
2. The student creates interactive and scalable web applications using React.

Assessment

The assessment provides an opportunity to demonstrate your mastery of the competencies in this certificate. You may attempt the assessment two times before additional support is necessary. If you require further attempts, please contact your Course Instructor or Student Experience Specialist.

◆ **3** quizzes ◆ **1** Front-End Certified Assessment ◆ **9** competency units

Certificate Outline

CodeSignal Learning Paths

Upon completion of this learning path, you will:

Introduction to Front-End Engineering	<ul style="list-style-type: none"> A. Gain advanced skills in HTML, CSS, and web browser fundamentals. B. Achieve an advanced level of proficiency in JavaScript programming and DOM API. C. Develop foundational skills in interacting with back-end and APIs.
JavaScript Programming for Beginners	<ul style="list-style-type: none"> A. Develop foundational skills in general programming and algorithms. B. Build a solid understanding of computer science fundamentals.
Front-End Engineering with React	<ul style="list-style-type: none"> A. Enhance intermediate skills in JavaScript programming and DOM API. B. Gain advanced proficiency in interacting with back-end and APIs. C. Develop intermediate skills in page layout and rendering with SPAs. D. Strengthen intermediate understanding of state management and dynamic interactions. E. Improve intermediate capabilities in routing, packages, and building SPAs.
Building a ToDo App with React	<ul style="list-style-type: none"> A. Understand how to build and structure React applications with Vite. B. Manage component state with React hooks and use a modular service layer for scalable, reusable code. C. Integrate APIs with the fetch API and implement authentication using JSON Web Tokens (JWT). D. Apply advanced front-end techniques for performance, search, filtering, and user experience optimization.

Technology Requirements

We want to be sure you have the tools to succeed! Review the [Computer System and Technology Requirements](#) to learn about the technology you'll need. If you have questions about your setup, contact support@academy.wgu.edu.

You will need Adobe Acrobat Reader DC. If you haven't already, [download this free software](#). You may encounter an interactive form that contains fields that you can select or fill in. Review [how to fill in a PDF form](#).

Key Contacts

Certificate Connect

(if you are enrolled in the Front-End Web Developer Certificate)

Check out this online community to take advantage of course resources, including videos and tips from your educators. You can ask and answer questions, provide feedback on your progress, and interact with fellow students. You will find this platform in the Student Resources section of the course. Log on and do some exploring!

Tutor.com

If you need academic support, don't hesitate to contact [Tutor.com](#). There, you have access to thousands of tutors. And they are available 24/7 from any internet-ready device. You can also benefit from instructional videos, study tools, and other assistance.

Technical Support

If you encounter technical issues, be sure to contact the Help Desk. Just [submit a Support Request for assistance](#).

Program Support

Do you have questions about your account? Student Support has answers. They can help with billing, switching courses, and other requests. You can contact them at (888) 320-0540 or support@academy.wgu.edu.

Accommodations

WGU provides compliant and accessible learning experiences. If you require accommodation, please contact us at the start of the course. You can email support@academy.wgu.edu or call (888) 320-0540. We are committed to ensuring that all students with disabilities have equal access to WGU's services and materials. We strive to use best practices for accessibility. Our goal is to conform to existing U.S. laws. These include the Americans with Disabilities Act and Section 504 and Section 508 of the Rehabilitation Act. Our learning management system (LMS) platform is Open edX. Open edX's commitment to accessible content is published on their [Website Accessibility Policy](#).