

# JAVASCRIPT PROGRAMMING CERTIFICATE

## Program Description

Front-end web development and back-end web development both start with a strong foundation in JavaScript. Gaining experience in this simple programming language will enable you to substantially expand the functionality of your websites.

In this certificate program, you will practice fundamental programming skills and build web interactivity through the use of JavaScript. Beginning with the basics of JavaScript syntax, you will construct simple programs to perform simple tasks. As you build your skills through the use of more advanced code structures and techniques, you will write JavaScript to create a variety of interactive web elements, from forms to image galleries. You will also have the opportunity to explore how to streamline your implementations and expand the functionality of your programs with libraries and asynchronous programming. To take JavaScript beyond the web, you will examine progressive web apps and have the opportunity to build a rudimentary app that runs offline. Upon completing the program, you will have developed a strong grounding in programming fundamentals and be well positioned to advance your skills in JavaScript as well as any number of programming languages.

You will be most successful in this program if you have some familiarity with HTML and CSS.

## Key Takeaways

- Write modular code using functions
- Break a large programming task into small, well-defined pieces
- Use loops and conditional statements together to perform multi-part operations on sets of data
- Analyze function execution to identify the source of errors
- Apply software development best practices to solve problems programmatically
- Expand the functionality of a program through libraries and asynchronous programming
- Streamline the development of JavaScript programs in local command line environments while developing a simple progressive web application

## What You'll Earn

- JavaScript Programming Certificate from Cornell's Ann S. Bowers College of Computing and Information Science
- 84 Professional Development Hours (8.4 CEUs)

## Who Should Enroll

- Novice and self-taught programmers
- Web development career starters
- Small business owners managing a website

## Courses

Code	Title	Hours
eCornell CIS561	Fundamentals of Programming	0
eCornell CIS562	Writing Programs that Make Decisions	0

eCornell CIS563	Coding Multi-Part Problems	0
eCornell CIS564	Solving Problems Using Functions	0
eCornell CIS565	Expanding Functionality with Libraries	0
eCornell CIS566	JavaScript Beyond the Browser	0