



Phase 3

## **CODING ACADEMY**

The Coding Academy is a self-paced, online curriculum that offers an opportunity to learn how to code. Our top-of-the-line learning management system (LMS), DevCamp, provides a dynamic learning experience by delivering learning materials and interaction for every student's success; our curriculum targets the skills necessary for real world application.

# CODING FOUNDATIONS CERTIFICATION Course Curriculum Overview

Advances in technology and resulting capabilities make it necessary for individuals to increase digital skills. This course will provide an overview of Coding Foundation vocabulary, concepts, and tools to build technical and managerial skills. HTML, CSS, Commandline and other programming languages will be introduced. Coding exercises will provide practice in using the languages and tools taught to build websites and explore exciting careers in technology.

These courses teach core knowledge of code theory and software development to all those who wish to be digitally literate. Upon completion, students should expect to understand fundamental software development techniques and methodologies. Students should expect to learn problem solving, creative thinking, adaptability, project management, how to lead meetings and presentations, and more.

## **Course Objectives**

- HTML & CSS Foundations Students learn the HTML & CSS languages to program basic websites integrating use of styles.
- 2. Commandline Fundamentals Students learn how to use the terminal and command line to complete assigned coding tasks.
- 3. Development Skills Students understand how to discern current trends in the tech industry and associated potential career options.
- Management Capabilities Students identify management strategies to effectively lead projects, meetings, presentations, and associated activities in technology industry settings.
- Teamwork Recognize teamwork competencies that promote productive communication, collaboration, and negotiation.

Total Hours: 60+ Courses must be completed in 4 weeks to qualify for the Full Stack Scholarship.

## Frequently Asked Questions

#### What if I don't know how to code?

It's okay! The goal of Coding Foundations is to teach the basic concepts of programming from the ground up.

#### How much will it cost me?

Full scholarships are available to those whom qualify and live within our 26 counties in NW Kansas.

# Is it possible to take these courses and work full time?

You must be able to dedicate 15 - 20 hours a week to the course work. While this can be difficult with a full time job, it is an investment in your future and well worth it when you land your dream job!

# What kind of computer and equipment is required?

Students must have access to a desktop or laptop (preferably Mac) that is less than 3 years old with access to a web cam and microphone for remote conferencing.

## What if I don't understand something or get stuck?

You will have a Peer Mentor that will work one-on-one with you throughout the courses.

## What happens after I complete Coding Foundations?

You will receive a certificate of completion. If you excelled in this course, you will be ready for the Full Stack Developer courses!





Phase 3

## **CODING ACADEMY (cont)**

## Frequently Asked Questions

#### How long do the courses take to complete?

With DevCamp instruction timing in at 124 hours we recommend 3 hours of related study and application for every hour of instruction to master the curriculum. Application consists of: project building, code submissions, note-taking, code alongs, mentor sessions, additional reading, review, etc.

# Do you offer career counseling and job placement support?

Yes! Coding Academy students also have access to our Remote Work Certificate courses, which includes a FlexJobs.com account, resume review, and much more. We are here to support you throughout the entire process and help you take the steps required to land your dream job!

# Are the courses completely online, or will I have to attend live, scheduled classes?

All programs are 100% online. You will have weekly, scheduled check-ins with your Peer Mentor, which are also conducted remotely.

# What will I achieve by graduating the Coding Academy?

Graduates receive Full Stack certification, which qualifies you for positions such as Junior Full Stack Developer.

## **Connect With Us**

www.ruralandremote.org









# FULL STACK DEVELOPER CERTIFICATE Course Curriculum Overview

Get trained on three of the most in-demand coding technologies in computer science; Python, React & JavaScript.

Python 3 is a versatile and powerful object-oriented programming language. Its easy to learn whether you're a novice or veteran. It's simplicity and versatility empowers programmers to create a wide variety of web development, software development and scientific applications.

React JS - React is a powerful JavaScript library that allows developers to create both large and small web-applications. It handles data dynamically and aims to provide speed, simplicity, and scalability to user interfaces in applications. React JS is a trending language that is in high demand with business owners.

### **Course Objectives**

- 1. Intro to Programming in Python Introduces the fundamental concepts of computer programming. Presents the ideas, tools, structure, syntax, and design techniques for developing well-formed programs.
- 2. Python Software Development Covers advanced features of the Python programming language. Includes scripting, dynamic typing, data types (sequences, sets, mappings, files, etc.), loops, iterators, generators, functions, coroutines, classes and objects, modules, packages and scope, runtime services, data wrangling, concurrent programming, etc.
- 3. Front-End Foundations (JavaScript) -Covers design and development of browser-based programs with an emphasis on single-page applications.
- 4. Database Foundations Introduces theory, concepts, architecture, and use of database management systems (DBMS). Presents the relational and object-oriented database models used in both local and client/server databases.
- 5. Advanced Web Development with React Teaches how to design, implement, test, and debug complex web applications using both client and server side technologies.

Total Hours: 600+

Courses must be completed in 6-8 months, dependent on time spent on coursework.