

Week of Vibe Coding

High School - One Week (5 hours)

Course Overview and Goals

Artificial Intelligence (AI) is transforming the way we live, work, learn, and code. In this one-week module, students will explore core AI concepts and learn how to create with AI. Students learn about how AI works, how to write better AI prompts, how to improve the initial output they get, and digital design. Through hands-on activities and critical discussions, students will gain foundational AI literacy while creating and problem-solving.

This is a condensed version of our [Introduction to Vibe Coding course](#). Lessons were selected to create a weeklong introduction to AI coding and creating with AI. This course is designed to give students a brief introduction to AI coding, and would be a great addition to or a fun special project in your computer science course. If you're looking for additional AI-coding lessons, you are encouraged to review the month-long version of the course.

Learning Environment

This course utilizes a blended classroom approach. The content is fully web-based, with students working within the CodeHS platform. Each module of the course is broken down into lessons. Lessons consist of content delivered through notes, quizzes, AI-coding activities, discussions, and free-response activities.

Technology Requirements

Students will use the CodeHS Vibe Coding environment within the course to complete activities and create websites with AI.

Prerequisites

This course is designed for complete beginners with no previous background in coding or AI but can be taken by students who have experience with these fields.

More Information

Browse the content of this course at <https://codehs.com/course/28911/explore>

Course Breakdown

Module 1: Week of Vibe Coding (5 hours)

In this module, students will gain an understanding of the main concepts around AI including what it is, how it works, how to use it safely, and how to review output for bias or misinformation.

Objectives / Topics Covered	• What is Artificial Intelligence • How to Write Better AI Prompts • Iterative Design • Customizing Colors and Fonts • Phishing
Example Assignments	• Your First Prompt ◦ Students start sending prompts and reflecting on the generated output in the first lesson in the course • Details in Prompts ◦ Students write three different prompts with varying levels of specified details and reflect on how the AI output changes as a result • Go Fish! ◦ Students practice the process of iteration by playing and improving an AI-generated card game • Fix it: Make This Page Accessible ◦ Students use AI to improve the accessibility of a website and check their work with an online accessibility checker • Recreate a Website ◦ Students use AI to recreate an existing website, then discuss how malicious actors might use this technology for harm

Supplemental Module: Project: Digital Record (2+ hours)

In this module, students complete a personal, customizable project where they create a digital record with AI.

Objectives / Topics Covered	● Using AI to Create a Personal Website ● Planning and Peer Reviewing
Example Assignments	● Plan ○ Before creating their project, students plan what they want their project to look like and include ● Build Your Digital Record ○ Students create a digital portfolio, scrapbook, or yearbook ● Peer Review ○ After creating their project, students review each other's projects and give feedback

Supplemental Module: Project: AI-Powered Game Studio (2+ hours)

In this module, students create a game of their choosing with AI-coding.

Objectives / Topics Covered	● Designing and Creating Online Games with AI ● Playtesting and Writing Feedback ● Reading Feedback and Making Improvements
Example Assignments	● Build Your Game: Version 1 ○ After writing a game pitch, students use AI to build an initial version of their game ● Playtest Your Own Game ○ Students practice the process of playtesting in order to find areas for improvement in their game ● Reading Feedback like a Developer ○ Students learn how to parse feedback to make meaningful changes and improvements to their game

Supplemental: Coming Soon.....

Supplemental material covering additional AI context and ethical considerations coming soon!