



CodeHS

Coding in Music Syllabus Mini Course (15 Contact Hours)

Course Overview and Goals

Coding + Music is a mini-course that introduces students to the basics of coding through music! In this block-coding course, students investigate how code can be used to create and enhance music by building programs that generate beat patterns, chord progressions, and musical sequences with visualizations.

Learning Environment: The course utilizes a blended classroom approach. The content is fully web-based, with students writing and running code in the browser. Teachers utilize tools and resources provided by CodeHS to leverage time in the classroom and give focused 1-on-1 attention to students.

Programming Environment: Students write and run JavaScript programs in the browser using the CodeHS editor.

More information: Browse the content of this course at <https://codehs.com/course/4356>

Course Breakdown

Unit 1: Introduction to Coding in Music (1-3 hours)

Students are introduced to the JavaScript block coding environment. They learn how to write a program that plays their own 8 count beat pattern.

Objectives / Topics Covered	<ul style="list-style-type: none">● Students use coding to create their own beat with music visualization by creating an array of beats on which to play sounds through the use of parameters.
Example Assignments / Labs	<ul style="list-style-type: none">● Make Your Own Beats<ul style="list-style-type: none">○ In this activity, students use coding blocks to make a beat. They can use different instruments, vary the tempo, and share out their results with friends.

Unit 2: Coding in Music (10 - 12 hours)

Students will learn how to add chords, notes, and visualizations to their songs. For a final project, students create a full-length song with music visualization.

Objectives / Topics Covered	<ul style="list-style-type: none">● Expanding beats into songs● Using loops● Visualizing their beats● Final project
Example Assignments / Labs	<ul style="list-style-type: none">● Playing Cords<ul style="list-style-type: none">○ Many songs use a series of cords. In this activity, students will

expand their beats into a series of cords to start making longer songs.

- Set the Stage
 - Add even more flair to your musical creations with a visual representation of your music!