

## CodeXcursion: Teach Python Coding with CodeX Grades 4-12

### Grade Levels

4-12

### Educational Setting

Both in school and/or out of school

### Informational Webinar(s)

[Register here:](#)

- Jan. 22, 5 p.m.
- Feb. 4, 3:30 p.m.

[Recordings on Iowa STEM's Website](#)

### Award Provides

- Class set of CodeX Kits for your largest class fully accommodating all of your students
- Hardware: CodeX, USB-C cord
- 1-year license to virtual curriculum
- Access to CodeSpace Learning Platform
- 2 full days of PD, 3 virtual follow-up sessions
- Python with CodeX Curriculum Guide
- Access to the [Learning Portal](#) Teacher Resources – Lesson Plans, Worksheets, Tests, & Remixes
- Year-round support
- \$150 per day stipend for the first two days of training completed with satisfactory participation

## 2025-26 STEM Scale-Up Program Summary

CodeXcursion is an innovative program by Firia Labs designed to empower Iowa teachers to integrate computer science into their classrooms—no prior experience with coding or Python is needed! This program supports educators in meeting the growing demand for accessible coding education in K-12 schools, using the CodeX curriculum to teach text-based Python programming in an engaging and authentic way.

Validated in classrooms, CodeXcursion equips teachers with the confidence and resources to introduce students to essential coding skills at a crucial stage in their academic journey. By combining hands-on physical computing devices with an intuitive curriculum, the program ensures early exposure to computer science concepts, helping students develop problem-solving, debugging, and algorithmic thinking skills.

Students start with Python basics and progress to exciting projects like creating games and simulations. Along the way, they build a strong foundation in computational thinking while connecting classroom learning to real-world STEM opportunities. Python, a versatile language used in cutting-edge fields like data science, artificial intelligence, and web development, prepares students with industry-relevant skills for the future. The implementation required for the program ranges between 6 and 18 weeks.

**How Our Licensing System Works:** Firia Labs licenses use a flexible, seat-based model tailored for classrooms and groups. Each license allows one student to access the online curriculum at a time. For example, with 30 licenses, up to 30 students can use the curriculum simultaneously. Once a student logs out, the license becomes available for another, enabling reuse across multiple classes or groups. Teachers only need enough licenses to cover their largest class size, making this approach cost-effective and easy to manage.

***Join CodeXcursion to inspire your students and lead them on a journey of exploration, creativity, and career-ready coding skills!***

[CodeX Professional Development - Teacher Praise](#)

## Requirements to Implement the Program

- Educator(s) must attend the training.
- Educator(s) must participate in the STEM Council Scale-Up Survey.
- **Computer Requirements:** You can use a Windows 10/11 PC or laptop, a Mac, a Chromebook, or Linux OS computer.
- **Chrome browser is required.** If you don't have Chrome, please download and install it: <https://www.google.com/chrome/browser/>
- If your computer ONLY has USB-C ports (no "regular" USB ports), then you'll need to purchase either an [adapter](#) or [cord](#) to use the CodeX.

## Additional Cost(s) to Awardee During Award Period

None

## Approximate Sustainability Cost(s) After Award Period

Python with CodeX License Renewal per device: \$69

## Website

[Firia Labs Iowa Scale-Up](#)

## Videos

[Discover CodeXcursion!](#)

## Social media

Facebook

[@firialabs](#)

X

[@firialabs](#)

LinkedIn

[FiriaLabs](#)

YouTube:

[@firialabs](#)

## Iowa Standards Alignment

### [CodeXcursion & Iowa State Standards](#)

**Science HS-PS2-1 | Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.** For example: Students will use the CodeX accelerometer to apply Newton's laws of motion. By measuring the acceleration of an object under different forces, students can analyze how the net force on the object affects its acceleration in relation to its mass.

**Technology 3A-AP-13 | Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests.** For example: Students will use CodeX with external sensors, like a temperature or humidity sensor, to create a weather station. They will write algorithms to collect and process data, such as triggering a notification when a temperature threshold is reached. This project allows students to apply computational thinking to real-world data while exploring their interests in weather and technology.

## Professional Development

### Duration:

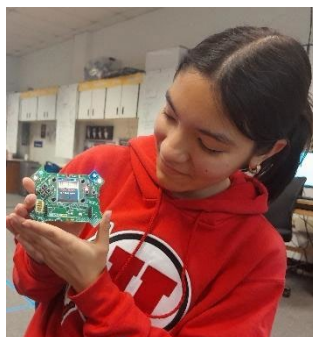
- **Initial training:** 2 consecutive days (6-8 hours per day) of in-person, training between, July 15-Aug 15,
- **Virtual training:** 3 meetings, spread throughout the remainder of the school year. 1 Fall meeting, 1 Winter meeting, 1 Spring meeting; 2.5 hours per meeting.
- **Virtual Coaching:** monthly meet-up September-April (8 total) 1-hour sessions.

### Date(s):

All in-person training sessions will be delivered during the months of July and August.

### Location:

Professional Development will be in-person, virtual, and synchronous. Pending the number of Scale-Up awards, each Iowa STEM region may host an in-person PD.



To Learn More or To Apply: [educate.iowa.gov/STEM/ScaleUp](https://educate.iowa.gov/STEM/ScaleUp)