



BOISE STATE UNIVERSITY

COLLEGE OF ENGINEERING
Department of Computer Science



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CONCURRENT ENROLLMENT

Computer Science Principles via Music

Boise State University

August 2nd - 4th, 2017

- Lab computers will be available but participants may wish to bring their own laptops
- Participants should bring personal head phones to the workshop

Agenda:

Day 1: Computer Science Principles via Music

Breakfast: 8:15-8:30

Morning: 8:30-11:30: *Introduction to Computer Science* [CCP 243]

- (0.25 hour) Introduction
- (0.75 hour) Blockly – Introduction to Coding
- (0.5 hour) What is Computer Science?
- (1.5 hours) Introduction to music composition via *EarSketch*

Lunch Break: 11:30-12:30

Afternoon: 12:30-4:30: *Introduction to Music and EarSketch* [CCP 242]

- (2 hours) Hands-on activities: develop a music composition
- (2 hours) Going further with *EarSketch*: loops and conditionals

Day 2: Computer Science Principles via Music (contd.)

Breakfast: 8:15-8:30

Morning: 8:30-11:30 *Digging Deeper* [CCP 242]

- (1 hour) Computer Science Principles
- (0.5 hour) *Live Coding* demo
- (1.5 hours) Compose music projects, guided by the instructors and assistants

Lunch Break: 11:30-12:30

Afternoon: 12:30-4:30 *Guided Coding* [CCP 242]

- (1.0 hour) Going further with *EarSketch*: Functions and Abstractions
- (3 hours) Continue composing music projects, guided by the instructors and assistants



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Day 3: Computer Science Principles via Music (contd.)

Breakfast: 8:15-8:30

Morning: 8:30-11:30: *Wrap-up project and Teacher breakout* [CCP 242]

- (0.5 hour) Reflection: CS Principles used during the project
- (1.5 hour) Finish composing music projects, guided by the instructors and assistants
- (1 hour) Breakout session for Concurrent Enrollment teachers [CCP 243]
 - CS 101 and AP CS Principles course discussion
 - CE Teachers: class evaluations
- (1 hour) Tour of the CS Department and some Free Tinkering Time (for students!)

Lunch Break: 11:30-12:30 (mix and mingle with some alumni from industry)

Afternoon: 12:30-4:30: *Project performances and Field trip* [CCP 242]

- (2 hour) Project Presentations and more Tinkering Time!
- (0.25 hour) *Workshop Evaluation*
- (1.5 hour) Walking tour of two software companies so teachers and students can better experience “what will a computer science career look like”
(*AppDetex* [3pm] and *Clearwater Analytics* [3:30pm])