**Semester 1 – Earsketch (Python)**

**Unit 1 – Environment**

IDE – Integrated Development Environment

Code Editor/Debugger

Console/Terminal

DAW – Digital Audio Workstation

Sound Loop Browser

API

Curriculum

**Unit 2 – Scripts**

Datatypes

Variables

Functions

Parameters

Constants

Comments

Import Statements

**Unit 3 – Earsketch Functions**

init

setTempo

finish

fitMedia

insertMediaSection

setEffect

makeBeat

makeBeatSlice

rhythmEffects

**Unit 4 – Musical Form**

Tempo, Time Signature

Rhythm, Meter, Beat, Measure, Bar

Counting Beats/Measures

Intro, Verse, Chorus, Bridge, Vamp

User-Defined functions

Code Reusability

Abstraction

**Unit 5 – Randomness**

Import Statements

randInt

selectRandomFile

reverseList

reverseString

shuffleList

shuffleString

**Unit – 6 Images**

2D Arrays/Lists

Pixels

Luminosity

Grayscale

RGB/HEX Color Codes

Sonification of Image Data

**Semester 2 - Python**

**Unit 1 – Computer Basics**

Computer Architecture

Binary Number System

Memory Storage/Stacks

Data

**Unit 2 – Programming Intro**

Datatypes

Variables

Input/output

**Unit 3 – Logic**

Boolean type

Relational Operators

Relational Expressions

Logical Operators

Logical Expressions

**Unit 4 – Control Flow**

Conditionals

For loop

For-each loop

While Loop

**Unit 5 – Functions**

Built-in functions

Parameters/arguments

User-defined functions

Return statements