

Grades 9-12

Distance Learning Module 2: Getting (re)Started

Week of: April 6 - April 10

Mathematics: Introduction to Computer Science Honors - *Modified from [Unit 1 - Unit 4](#)*

Targeted Goals from Stage 1: Desired Results

Content Knowledge: Continued review of Units 1-4 (and parts of Unit 5) including: working with variables, calculations, and the assignment statement; basic string methods and use; more in-depth review of built-in functions, conditional logic; creating and using user-defined functions; and iteration

Vocabulary: variables, assignment statement, script, program, IDE, repl.it, conditional statement, loop, iteration, if, elif, else, for, while, operator, function, string, integer, float, boolean

Skills: running a program from IDLE or an online interpreter such as repl.it, creating a program, performing calculations involving addition, subtraction, multiplication, division, exponentiation, and modulo operators on numbers, concatenating string, converting datatypes from string to numeric using the built in functions, formatting output, getting input, naming and defining variables, modeling real world decision making through conditional statements, working with logical operators (AND, OR, NOT), testing strings for equality, using built-in functions, creating functions, passing arguments to a function, returning values from a function, nesting function calls, invoking a function, writing “for” loops, writing “while” loops, modeling events with random numbers and loops

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Check-in and troubleshooting after week 1 Students will review how to use Python’s built-in functions (len, int, str, float, input, type, print)	Trimester 1 Review Part 5 - Built-in Functions	Google Classroom Quiz - Built-in Functions

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
<p>Tuesday:</p> <p>Students will continue reviewing and relearning key concepts from Trimester 1. Today's focus will be on conditional statements.</p>	<p>Trimester 1 Review Part 6 - Conditional Statements</p>	<p>Screenshot of Coding Bat problem Warmup-1 > pos_neg</p> <p>Screenshot of Coding Bat problem Logic-1 > caught_speeding</p>
<p>Wednesday:</p> <p>Students will review Trimester 1 concepts of defining and calling user-defined functions.</p>	<p>Computer Science Trimester 1 Review Part 7 - Functions Part A</p> <p>Computer Science Trimester 1 Review Part 8 - Functions Part B</p>	<p>Function practice lab problems</p>
<p>Thursday:</p> <p>Students will review Trimester 1 concepts associated with iterating with "while" loops.</p>	<p>Computer Science Trimester 1 Review Part 9 - Iteration Part A</p>	<p>Iteration practice lab problems (while loops)</p>
<p>Friday and Next Monday:</p> <p>Students will review Trimester 1 concepts associated with iterating with "for" loops.</p> <p>Students will complete any open practice items from this week, and remediate as needed.</p>	<p>Computer Science Trimester 1 Review Part 10 - Iteration Part B</p>	<p>None - day off for Good Friday</p>

Week criteria for success (attach student checklists or rubrics):

By the end of this module, students should have regained familiarity with the programming concepts we covered during the first half of the course. In addition, students should have had an opportunity to practice using those concepts, and to address any lingering questions.

Supportive resources and tutorials for the week (plans for re-teaching):

Think Python, 3rd Edition (free online Python book)

Coding Bat

Office hours

Python Programming Third Edition by John Zelle. This textbook provides additional examples and content, and is available for purchase from Amazon and other retailers.