# CompuScholar, Inc.

# Alignment to North Carolina BP14

# "Python Programming I" Course Standards

## **BID IDENTIFICATION # CPS3001**

#### **North Carolina Course Details:**

Course Name: Python Programming I
Primary Cluster: Information Technology

Course Code(s): BP14
Grade Level: 9th-12th

State Standards Link: 2020-2021 Course Standards, BP14

## **CompuScholar Course Details:**

Course Title: Python Programming
Course ISBN: 978-1-946113-00-9
Course Year: 2021

**Note 1**: Citation(s) listed may represent a subset of the instances where objectives are met throughout the course.

**Note 2:** Citation(s) for a "Lesson" refer to the "Lesson Text" elements and associated "Activities" within the course, unless otherwise noted. The "Instructional Video" components are supplements designed to introduce or re-enforce the main lesson concepts, and the Lesson Text contains full details.

## **North Carolina Course Description**

This course is designed to introduce Python as a beginning course (not intended for experienced programmers). The course is designed for students to learn and practice coding in an online environment that requires only a modern web browser and Internet connection. No special software is required to complete this course. The course includes video content, practice labs, and coding projects. Mathematics is reinforced.

## **Course Standards**

1 - Understand Python language basics. (42%)	CITATION(S)
1.01 - Python and Jupyter Basics	Chapters 1 - 3
	(We use our own online, auto-
	graded IDE instead of Jupyter)
1.02 - Functions	Chapter 9
1.03 - Conditionals	Chapter 4
1.04 - Nesting and Loops	Chapter 6, Lessons 3-4

2 - Understand Python data structures. (29%)	CITATION(S)
2.01 - Sequence Indexes	Chapter 6, Lessons 1, 3
2.02 - Sequence Manipulation	Chapter 6, Lesson 2
2.03 - Sequence Iteration	Chapter 6, Lesson 3
2.04 - Working with Files	Supplemental Chapter 5

3 - Understand how to use Python to develop sustainable code. (29%)	CITATION(S)
3.01 - Python Modules	Chapter 7
	(datetime, random, math)
	Supplemental Chapter 5 (os)
3.02 - More-Powerful Statements	Chapter 4, Lesson 4
	Chapter 7, Lesson 2
	Chapter 8, Lessons 2-3
3.03 - Methods and Structures for Robust Code	Chapters 9, 10, 11
3.04 - Proper Functions	Chapter 9
	Chapter 10, Lesson 2
	Chapter 11, Lesson 2