Unit	Topic	Lesson	Lesson Objectives
Computer Science II			
	Course Overview		
		Introduction	
			Describe the goal of the course
			Describe some of the careers found in this field
			List tips for achieving academic success in the course
		Start the Course	
			Identify computer requirements
			Learn how to move through the course
			Switch between windows
		Set Up Your Computer	
			Find files and folders on a computer
			Set up a computer to show the List folder view and file name extensions
			Make a course folder
		Set Up a Browser and Install Software	
			Set up a web browser
			Download and install a zip utility
			Zip and unzip files and folders
			Download and unzip course resources
			Install software
		Research and Citation	
			Identify sources of trustworthy information
			Define plagiarism and citation
	List Manipulation		
		List Methods	
			Create a list
			Use list methods to get information about the list
			Add and remove elements from the list
		Slice and Stride	
			Create a list
			Use slicing and striding on the list
			Delete elements from the list

Unit	Topic	Lesson	Lesson Objectives
		Stacks and Queues	
			Use a list as a stack
			Use a list as a queue
			Create a deque object and use it as a queue
	Interactive Drawing Program		
		Tuples and Conditions	
			Unpack a tuple
			Use if, else, and elif statements to determine what will happen
		Draw Line Segments	
			Write a callback function that draws lines when the user clicks the canvas
			Hide the turtle and add dots between line segments
			Randomize the color and width of the lines
		Draw Separate Lines	
			Use local and global variables
			Use if and else statements to make the turtle draw disconnected lines
	Loops and Nesting		
		while Loops	
			Learn about the while loop and infinite loops
			Create an infinite loop
			Create a non-infinite while loop
		Start the Password Program	
			Learn about nested and flat code
			Create nested loops and conditional statements
			Use the pass statement
		Finish the Password Program	
			Replace the pass statements with the program's final code
			Use the continue and break statements
	String Formatting		
		String Formatting	
			Learn about the format() method and replacement fields
			Insert variables and values into strings with the format() method
			Use the index of inserted values to control where they are inserted in a string

Unit	Topic	Lesson	Lesson Objectives

Format Specifiers

       Learn about format specifiers for alignment and fill characters

       Align text in a replacement field

       Add fill characters in a replacement field

Formatting Numbers and Other Data Types

       Insert list and tuple elements in strings

       Learn about rounding errors, rounding, and fixed point numbers

       Format floating point numbers

Formatting Complex Strings

       Use argument names in string formatting

       Break up code onto multiple lines

Program a Menu

Create and Print a Menu

       Print a welcome message for the restaurant

       Create a list of tuples and assign it to a variable

       Write a for loop that iterates through the list and prints the elements

Format Menu Items

       Add numbers to menu items

       Format the menu items with fill characters

       Format the prices to look like dollar amounts

       Start an infinite while loop that asks the user for input

Calculate the Subtotal

       Learn about the parts of a bill

       Create variables for the subtotal, tax rate, and tip rate

       Calculate and print the subtotal

       Respond to unexpected user input

Calculate and Print the Bill

       Write a condition for finalizing the order

       Respond to a user who doesn't order anything

       Calculate and print the bill for a user who orders items

Unit	Topic	Lesson	Lesson Objectives
	Text Adventure Game		
		Create Game Variables	
			Learn about adventure games
			Learn about the dragon room games and moving between them
			Create variables for your program
		Move the Player	
			Write a function to move the player between rooms
		Interact with the Player	
			Call the function for moving the player when the player types specific commands
			Write code to exit the program when the player types exit
			Write a function that describes each room's location to the player
		Randomize Special Room Locations	
			Write and call a function that randomly assigns locations for each special room and make sure each is at a different location
			Print the locations of the special rooms to make it easier to test the program
		Code the Lute and Castle Rooms	
			Write a function for the special event of collecting the lute
			Write a function for the castle room
		Code the Dragon Room	
			Write the function for the dragon room
			Move the player back to the crossroads when the dragon scares the player for the first time
			Test the program to make sure it works correctly
	Dice Game		
		Start the Dice Class	
			Learn about randomness and pseudorandmoness
			Learn about classes, instances, and attributes
			Create a Dice class and initialize it with the __init__() method
		Roll the Dice	
			Write Dice class methods for rolling dice and printing the results of the roll
			Create an instance of the Dice class and use the Dice class methods

Unit	Topic	Lesson	Lesson Objectives

More Dice Methods

Write and test Dice class methods for getting the high value, adding dice values, counting dice, adding and removing dice, and converting the list to a string

Write the Game

Write a dice game that uses the Dice class and its methods