CSE 110 Programming Building Blocks

Programmers use the internet to piece together solutions

I will skip the VS studio set up and let them search online for how to install and use it.

Declaring variables

How to make comments

Combining and formatting strings

<https://www.w3schools.com/python/python_ref_string.asp>

<https://docs.python.org/3/library/stdtypes.html#string-methods>

For Case Matching

<https://www.unicode.org/versions/Unicode15.0.0/ch03.pdf#G33992>

| **Code** | **Result** |
| --- | --- |
| **words = "the cat IN THE hat"** | **the cat IN THE hat** |
| **words.capitalize()** | **The cat in the hat** |
| **words.title()** | **The Cat In The Hat** |
| **words.upper()** | **THE CAT IN THE HAT** |
| **words.lower()** | **the cat in the hat** |
| **words.count("t")** | **3** |
| **words.lower().count("t")** | **4** |

Week 2 complete

Handling input and output

Using Variables and Expressions

Solving problems using variables and expressions

Using conditional statements

Solving problems using conditional statements

Solving problems using loops

Lists

Solving problems using lists

Working with files

Solving problems using files

Basics of Functions

CSE 111 Programming with Functions

Writing Functions

Testing Functions

Lists and Repetition

Text Files

Functional Programming

Planning and writing significant programs (text based adventure)

CSE 121B JavaScript Language

Operators and Basic DOM

Arrays and DOM events

Functions and Objects

ES modules and Fetch

Planning and writing significant programs (Multimedia web page)

CSE 210 Programming with Classes

Version Control

Abstraction

Encapsulation

Inheritance

Polymorphism

Planning and writing significant programs (text based adventure 2nd attempt)

CSE 212 Programming w/Data Structures

Problem Solving Strategies/Dynamic Arrays

Evaluating Performance of Alternate Solutions/Big-O Notation

Understanding Code Using Reviews/Stacks

Finding Defects Using Tests /Queues

Articulating Answers Using Tests / Sets

Maps

Linked Lists

Recursion

Trees

Teaching about data structures