

# CPS 109 - Lab 8

# Agenda

1. Dictionaries
2. Randomness
3. Multi-Dimensional Arrays

# Dictionaries

Dictionaries are yet another Python collection (like lists and tuples).

However, unlike the ones you've learned before, dictionaries are **unordered**.

# Dictionaries

**Unordered** means that you cannot access the members of the dictionary by their index number. You have to get them by their key.

# Dictionaries

You access a dictionary object by its key. What is a key? Well, the objects of a list take on the following format:

Key: Value(s)

# Randomness

What is randomness? Well, in python, it's using pseudo randomly generated values or choices to use in your program.

# Randomness

Why would you use random numbers or choices?

Several reasons: games of cards, rolling dice, etc.

# Multi-Dimensional Arrays

You all have dealt with matrices by now, right?

Multi-dimensional arrays are a way to represent those.



# Multi-Dimensional Arrays

And what are those?

They're just lists within lists.