# IT 5413 SOFTWARE DESIGN AND DEVELOPMENT

# **Module 5: Sequence and Set**

## Overview and learning outcomes

In this module, we will be covering sequence and set data types, including list, tuple, dictionary, and set. We will look at how to create a variable of each of these data types, find items to process, and examine the various methods and built-in functions.

COURSE OBJECTIVES

This module contributes to the following course objectives:

1. Analyze, design, develop, and implement programs in an object-oriented language

MODULE OBJECTIVES

Upon the completion of this module, you will be able to:

## Discuss the various methods and operators used for lists

## Define a PYTHON Dictionary

## Describe what a Set is and how it is used in PYTHON

## Write a program using lists

## ASSIGNED READINGS

1. Lists, Tuples, Dictionaries, Sets (Located In D2l In The Module)
2. Python List. Link: <https://www.youtube.com/watch?v=9OeznAkyQz4>
3. Python List. Link: <https://www.w3schools.com/python/python_lists.asp>
4. Python Tuples. Link: <https://www.w3schools.com/python/python_tuples.asp>
5. Python Sets. Link: <https://www.w3schools.com/python/python_sets.asp>
6. Python Sets. Link: <https://www.youtube.com/watch?v=t9j8lCUGZXo>
7. Python Data Structures. Link: <https://docs.python.org/3/tutorial/datastructures.html#tuples-and-sequences>

## RECOMMENDED READINGS

1. Introducing Python: Chapters 7, 8 (Link: <https://www.brianheinold.net/python/A_Practical_Introduction_to_Python_Programming_Heinold.pdf>)

## ACTIVITIES AND ASSESSMENTS

1. Module 5 Discussion
2. Assignment 5 (Located In D2l In The Module)