# IT 5413 SOFTWARE DESIGN AND DEVELOPMENT

# **Module 4: Files and Strings**

## Overview and learning outcomes

In this module we will be covering file input and output, using loops to process files, as well as the topics of string operations, string slicing, testing, searching, and manipulating strings.

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:

## Define file input and output, and how to use these types of files in a program

## Define what a file, record and field are

## Define an "exception" and how to use it in PYTHON

## Write a program that uses loops to process files

## Write a Python program that uses a string operation

## ASSIGNED READINGS

1. File Handling (Located In D2l In The Module)
2. Exceptions (Located In D2l In The Module)
3. Python String. Link:<https://www.youtube.com/watch?v=Ctqi5Y4X-jA&t=8s>
4. Python Variables. Link: <https://www.w3schools.com/python/python_strings.asp>
5. Python File Handling. Link: <https://www.w3schools.com/python/python_file_handling.asp>
6. Python File Handling. Link: <https://www.youtube.com/watch?v=DmHSwTiD5Tk>
7. Python Exception Handling. Link: <https://docs.python.org/3/tutorial/errors.html>

## RECOMMENDED READINGS

1. Introducing Python: Chapters 6, 12 (Link: <https://www.brianheinold.net/python/A_Practical_Introduction_to_Python_Programming_Heinold.pdf>)
2. Python Functions. Link: <https://docs.python.org/3/tutorial/controlflow.html#defining-functions>

## ACTIVITIES AND ASSESSMENTS

1. Module 4 Discussion
2. Assignment 4 (Located In D2l In The Module)