# Spring 2022: CSEE5590/490 – Special Topics

## Python and Deep Learning - ICP-1

**Lesson Overview:**
In this lesson, we will focus on installation and making one familiar with python programming concepts.

**Use Case Description:**
1. Hello World
2. Add two numbers
3. Basic operations
4. Basic for loop

**Programming elements:**
Python Features, Applications, Installation, Python version, Data types, Operators, Conditional Statements

**In class programming:**
**Note: Code quality (in terms of time and space complexity) is highly valued**

1. State differences between Python 2 and Python 3 version.

2. Write a python program for the following:

- Input the string "Python" as a list of characters from console, delete at least 2 characters, reverse the resultant string, and print it.

*Sample input:*

•python

•*Sample output:*

•ntyp

- Take two numbers from user and perform arithmetic operations on them.

- Ask user for a list of names, add these names to a list:
  - Print the length of the list.
  - Add new name to the list.
  - Print the list

3. Write a program that accepts a sentence and replace each occurrence of 'python' with 'pythons' without using regex

•*Sample input:*

•I love playing with python

•*Sample output:*

•I love playing with pythons

** Follow the IPC rubric guidelines.

**Submission Guidelines:**

1. Once finished present your work to TA during class time.
2. Once evaluated submit your source code and documentation to GitHub and represent the work in a ReadMe file properly (short summary for the ICP).

**After class submission:**

1. Complete your work and submit to your repo before the deadline.
2. Record a short video (2~4) minute, explaining the technical part and method used.
3. Add video link to ReadMe file.

**Note:** *Cheating, plagiarism, disruptive behavior and other forms of unacceptable conduct are subject to strong sanctions in accordance with university policy. See detailed description of university policy at the following URL: https://catalog.umkc.edu/special-notices/academic-honesty/*