

# 2017 Fall: COMP-SCI 5590/490 - Special Topics

## Python Programming

### Tutorial 4

#### **Course Plan**

- Classes are one of the important concepts of python. Everything in Python is an Object. We learnt as part of this how to build a class. Classes enables us to encapsulate data, restrict scope of data members and functions. They helps us in reusability by inheritance. We can define various level of data encapsulation like private, protected and public.
- Introduction to machine learning using Numpy package which is core of machine learning

#### **In-Class Exercise**

1. Create a class Student and then do the following
  - Create a data member to count number of students
  - Create a constructor to initialize name and other personal details
  - Create a function to calculate number of students
  - Create a function to display students name ,rollno and grades
  - Create a TransferStudent class and it should inherit the properties of Student class.
  - Create instances of TransferStudent and Student class and call their member functions.
2. Create a 10x10 array with random values and find the minimum and maximum values