**Homework 3**

**Instructions:**

Please complete the questions/problems described here by creating the necessary .py files. Once completed, submit the individual files of this directory to the Programming Assignment #3 submission box on Blackboard.

**Question #1 (40 points)**

1a) A constructor that can be called as Course(courseID: str, courseName: str, creditHours: float, period: int). In the constructor, you should assign each input argument to an instance attribute of the same name.

1b) An instance method that can be called as course.printCourseInfo(), which prints all the instance attributes for the course.

**Question #2 (40 points)**

Create a file Student.py that defines an object of the Student class, including:

2a) A constructor that can be called as Student(studentID: str, studentName: str). In the constructor, you should assign each input argument to an instance attribute of the same name. You should also declare an instance attribute courseGrades, assign it an empty list and the data type list[tuple[str, float]].

2b) An instance method that can be called as student.printStudentInfo(), which prints the student's ID and name to the console.

2c) An instance method that can be called as student.assignCourseGrade(courseID: str, grade: float), where the courseID is a string that maps to a course object's courseID and the grade is a float on the range of 0 - 100. The method should package the two values as the tuple (courseID, grade) and append the tuple to the instance attribute student.courseGrades.

**Question #3 (20 points)**

3a) A small amount of testing code at the end of the file that allows you to instantiate the Course class and call the printCourseInfo() method on a test course object.

3b)A small amount of testing code at the end of the file that allows you to instantiate the Student class and call the printStudentInfo() and assignCourseGrade(courseID, grade) methods on a test student object.