**CSCI 2170 Homework 1**
**Due: beginning of class, Wednesday Feb 15th**

**1. Peer Code Review for OLA2**

Log into PeerSpace, and Select Tools/Peer Review. You have been assigned two programs developed by two other students in the class for OLA2. Review both programs.

**2. Define an abstract data type "Student".**
Data of this ADT include:

- firstname
- lastname
- totalCredits
- GPA

The member functions (aka methods) of the ADT include:

- Default constructor
- Parameterized constructor
- **Copy constructor**
- Separate methods to retrieve firstname, lastname, totalCredits, GPA, one per method
- Separate methods to set firstname, lastname, totalCredits, GPA, one per method
- A method named "GreaterThan" that compares the totalCredits of two students and returns true if the first student has more credits than that of the second student
- A method named "DisplayInfo" that prints out all the information of a student
- **Overloaded < operator** (comparison based on lastname of the person. Returns true if the first student's lastname alphabetically precedes that of the second student)
- **Overloaded >> operator**
- **Overloaded << operator**

Write (1) the complete header file for the Student class: Student.h
(2) the implementation file: Student.cpp.
(3) the client program which includes the following:

1. Create a student "student1" using the default constructor
2. Create a student "student2" using the parameterized constructor
3. Create a student "student3" using the copy constructor. Once created, "student3" has the same information as "student2".
4. Display the information of "student3" using the "DisplayInfo" function
5. Display the information of "student2" using the overloaded << operator
6. Compare the number of credits of students 1 and 2. Print appropriate message for whether the first student has more credits than the second student
7. Compare the last names of student1 and student2, print appropriate message for whether the first student has his last name alphabetically precedes that of the second student
8. Create an array of 20 students, name the array "Section1".
9. Assign the number of credits for each student in the array to 30.