Programming Assignment #5
CS 162: Introduction to Computer Science

Submit your assignment to the D2L Dropbox
Email a backup copy to karlaf@pdx.edu

LATE work cannot be accepted for assignment #5.

Programming. The purpose of the 5th program is to implement the new concepts learned of linear linked list (LLL). In this program you are to create a linked list of each student's attendance (lecture and lab). You have a choice with the 5th assignment. You can add linear linked lists to your existing program #4, or you can start from scratch and just do a linear linked list of students, with or without classes.

Our goal is to continue to create programs with a small main function that delegates to a series of functions where the real work takes place. In this programming assignment, you are **not** allowed to use global variables. You are allowed (as usual) to use the cstring library (e.g., strlen, strcpy, and strcmp). Limit your main (and all functions) to no more than 30 statements of code (for executable statements… *not counting variable definitions, blank lines, lines with just curly brackets, or comments)*

With the linear linked list, you should be able to insert student attendance into a linear linked list. Now allow the user to search for just a student and display their attendance. Have this done repetitively, using a loop, until the user is satisfied. When done, make sure that all dynamic memory be destroyed. If you use a class, this can be done in the destructor.

To get full credit for the programming portion, you will need to:

1. Turn in an algorithm written using full English sentences (it may be provided in outline form, paragraph form, or graphical (such as a data flow diagram)). It can be supplied as part of your header comments or as a separate file.
2. Program using a consistent style of indentation, header comments for each function, inline comments for each major block of code
3. Make sure to put your name in your program
4. Submit an electronic copy of your .cpp file as an attached file to the dropbox on D2L (go to: http://d2l.pdx.edu/ to login). Make sure to hit the submit button after uploading your files (otherwise they will be lost)