Hi all

EE 355 is a fairly rigorous C++ programming class. While I will try to convince you of the importance of programming in a language like C++ when the semester begins, I thought I'd offer a few preparation exercises that you can do over the break. I realize many of you have seen only limited amounts of C in EE 150. So for you it will be important to read and program some in advance.

You should have access to some C++ compiler from EE 150 (either locally on your PC via Cygwin, Codeblocks (see the other attachment), or Visual Studio or by logging into the USC UNIX student server: aludra.usc.edu (using an SSH application like PuTTY which is freely available from software.usc.edu).


For starters, work through the tutorial at: http://cplusplus.com/doc/tutorial/ starting from the beginning and continuing through pointers. Write down any questions or unclear statements. We can discuss them at the beginning of the semester. Also, I have made lecture videos on most of these topics available at: http://ee.usc.edu/~redekopp/csmmodules.html. Please be sure you know the material covered in the first 3 modules (C++ Introduction and Control Structure and Functions) before coming to class.

- C++ Introduction
- Control Structures
- Functions
- Arrays and C-Strings

I expect that EE 150 should have at least helped you understand the majority of these topics (Chapters 1-5 in the textbook..peruse and actually read these as a refresher).

When you have reviewed, please complete the following Assessments on Blackboard. Log-in, go to EE 355's page, click on Assignments then HW's. You can take the Chapter 2, 4-5, and 6 assessments. These are due by the 2nd Monday of the new semester (January 21st before class), but I would highly recommend you complete these over winter break and come into class having done these (you may take them as many times as you like).

As practice you can also complete the following programming exercises specified in the book. We will go over some of these in the first week or two of class. So having done these beforehand will be EXTREMELY beneficial (I won't say you have to, but I think you should do as much as you can before coming to class and then we'll review).

Ch. 4 programming exercises 2, 7 (pgs. 251-253)
Ch. 5 programming exercise 2, 7, 9a-e, 10, 16 (pgs. 328–331)
  • Ex. 9 part d has a typo...Output the numbers and their squares between firstNum and secondNum.

Ch. 6 programming exercises 2, 6, 8 (pgs. 436- 439)

[Challenge - Optional]
Ch. 8 programming exercises 2, 3, 5, 7 (pgs. 584-585)
  • Ex. 2...Be sure your program returns the index of the first occurrence of the smaller value (e.g. for the array [9, 7, 12, 7,10], you should return 1 which is the index of the first 7.)
  • Ex. 3... Be sure your program handles [12 0 0 12 0 0] and returns 3
  • Ex. 5...By including <ctype> as a header, you can call the function toupper() which takes a character as an argument and returns a character that is the uppercase equivalent.
  • Ex. 7...Declare an array of 5 char *’s and a temp character array (char temp[100]). Accept input into temp, then allocate a new character array storing its address in the appropriate element of the char * array. Then copy from temp into the new array.

Looking forward to spring,
Prof. Redekopp