

**CECS 130-01****Spring 2017****Lab 2****Lab Assignment due between 2:30 - 4:00 pm Tuesday, January 24, 2017**

Please and follow the instructions below very carefully

**Demos** (To be done by lab Instructors):

1. Create a program that prompts the user to enter the temperature in degrees Fahrenheit the uses the formula:  
$$\text{celsius} = 5(\text{Fahrenheit} - 32)/9$$
to convert the input temperature to degrees Celsius.
2. Create a program that defines a const variable pi and use it to calculate the area of a circle of radius 5. Demo that trying to reassign the constant variable generate compiler error.
3. Create a program that defines int, char, float, double variables with short and long qualifiers when appropriate then use the "sizeof()" function to demonstrate the length of these variables in bytes

**Lab Assignment** (To be uploaded by the student prior to leaving the lab):

1. Knowing that one mile is equal to 1760 yards. Write a program that prompts the user to enter some distance in miles and convert this distance to yards using the formula  
$$\text{yards} = 1760 * \text{miles}$$
then display the result back to the user.
2. Write a program that demonstrates that variables of type long double uses 16 bytes of memory

**Home Assignment** (To be uploaded by the student by 9:00 pm Friday Feb 3):

Homework problems will be posted by Dr. Imam on Thursday Jan 26th.

**A note about assignments and reports:**

Your presentation in your reports and assignments reflects great deal about you, your understanding of the assignment and on how much this course means to you. I try very hard to look at the substance of the report but I will be lying if I said that presentation does not influence my judgment. It would be wise on your part to assume that this true in every course at school and in real life/work. I expect your reports to be well formed and conform to the following rules:

1. **First and above all, I will not accept any late assignments and I will not accept any assignments by email. All submissions must be via Blackboard and on time.**
2. All reports have to be submitted as a **PDF** report that contains:
  - 2.1. Title page with your name, assignment number and the day you are actually submitting this report (Not the assignment due date)
  - 2.2. A comprehensive set of snapshots showing the inputs submitted and outputs obtained in the case of a successful output or a failure.
3. A C/CPP source code file for each programming problem and each must be named problem\_n.cpp where nn is the problem number.
4. Make sure that you include as a comment at the top of your file your name and section:

As an example:

```
/* **** */
/* John Q. Public      */
/* CECS 130-11         */
/* Assignment 35        */
/* **** */
```

Failure to do this will cost you points.

5. Please zip both the PDF document with the source code files in one zip files that must be named as lastName\_firstName\_nn.zip where nn is the assignment number, e.g. my zip file for assignment 3 should be called "imam\_ibrahim\_03.zip".
6. Please do not submit your eclipse or bloodshed project or any IDE project that you may be using. I will be compiling and testing your source code from the text file in part 2 above to test running your applications and to verify that they run.
7. If you do not follow the instructions above I will not grade your homework and you will get a grade of 0 (zero)