

## ECE 71 – Engineering Computations in C

Professor Kriehn – Fall 2016

**Code Due By:** Midnight on Tuesday, Nov 15, 2016

**Write Up Due By:** Class on Thursday, Nov 17, 2016

### HOMEWORK #27 – Alphabetic First and Last Words

Write a program that finds the first and last alphabetic word in a series of words. After the user enters the words, the program should determine which word comes first and last if the words were listed in dictionary order. The program must stop accepting input when the user enters a four-letter word.

#### Specifications:

Assume that no word is more than 20 letters long. Use two strings named `first_word` and `last_word` to keep track of the first and last alphabetic words that were entered. Also used a string called `word` to store the current word. The declarations of the character strings should use a global constant (macro) to define the number of elements in each array.

Each time the user enters a new word, use `strcmp` to compare the word with `first_word`; if the new word is smaller, use `strcpy` to save it in `first_word`. Do a similar comparison with `last_word`. Use `strlen` to determine when the user has entered a four letter word.

```
~> hw27.o
Enter word: dog
Enter word: zebra
Enter word: rabbit
Enter word: catfish
Enter word: walrus
Enter word: cat
Enter word: fish

First word: cat
Last word: zebra
~>
```

## HOMEWORK #28 – Date Conversion

Write a program that accepts a date in International Date Format (yyyy mm dd) from the command line and converts it to an American Date Format, where the name of the month is displayed. If three arguments are not entered into the program, or the arguments are not numbers, an error message should be displayed.

### Specifications:

Store the month names in an array that contains pointers to strings. Use `argc` and `argv` as inputs to the main program. `argv` can be declared as a character pointer array or a character pointer to a pointer (via Netbeans). Use of the `atoi()` function (Ascii TO Integer) will be extremely useful.

```
~> hw28.o
~> Please enter an ISO Date into the program (yyyy mm dd).
~> hw28.o 201x 33 s
~> Please enter an ISO Date into the program (yyyy mm dd).
~> hw28.o 2011 11 24
Date: November 24, 2011
~>
```