**Instructor:** Professor Neena Kaushik

**Office hours (in AT 203):** Mondays: 3:15 to 4:15 p.m.

Wednesdays: 10 to 11 a.m.

and by appointment

**Email:** kaushikneena@fhda.edu

**Course website:** http://www.deanza.edu/faculty/kaushikneena

**Lecture:** 12:30 - 2:10 p.m. in AT 312 (1:30 – 1:35 p.m. break) (Mondays & Wednesdays)

**Lab:** 2:15 - 2:40 p.m. in AT 312 (Mondays & Wednesdays)

**Assignment due date:** October 22

<table>
<thead>
<tr>
<th>Part</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program works correctly</td>
<td>25</td>
</tr>
<tr>
<td>Output with three test cases</td>
<td>25</td>
</tr>
<tr>
<td>Comments and variable names properly used</td>
<td>20</td>
</tr>
<tr>
<td>Header</td>
<td>20</td>
</tr>
<tr>
<td>Program and output sheets are stapled properly</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

1) **Please submit your program in hard copy along with the output**

2) **Please use comments in your program. Please name the variables so that they indicate what the variable does in the program. A maximum of 20 points will be deducted if variable names and comments are not used properly.**

3) **Please include the following header in your program. A maximum 20 points will be deducted for the header not being present in the program.**

/*--------------------------------------------------------------------------------*/

** Program written by: Your name

** Inputs: List the inputs to the program

** Outputs: List the outputs from the program

** What the program does: Say what the program does

*******************************************************************************/
ASSIGNMENT 4

Write a C program which reverses a four digit number.

1) You have to use a function which reads the number first.
2) You have to use a function which reverses the number.
3) The main program should call both these functions. It should first print the number and then the reversed number.

<table>
<thead>
<tr>
<th>Function prototype</th>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>int read_number(void)</td>
<td>Upward</td>
</tr>
<tr>
<td>void reverse_number(int *number)</td>
<td>Bi-directional</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How to call the functions from main</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>number = read_number();</td>
<td>number contains the number to be reversed</td>
</tr>
</tbody>
</table>
| reverse_number(&number);                                | 1) Before the function call number contains the number to be reversed  
|                                                         | 2) After the function call, number contains the reversed number |
EXAMPLES:

1)

**INPUT**
1234

**OUTPUT**
The number that you entered is 1234
The reversed number is 4321

2)

**INPUT**
9876

**OUTPUT**
The number that you entered is 9876
The reversed number is 6789

3)

**INPUT**
5555

**OUTPUT**
The number that you entered is 5555
The reversed number is 5555