

**COSC 5340-03/COSC 4301-05**  
**Image Processing**  
**Assignment 1**  
**Due: 23:59:00pm 07/31/2015**

**Name:**

**L Number:**

1. Please complete the provided Matlab code to implement Nearest Interpolation method and Bilinear Interpolation method.

You may use lena.bmp (256\*256) to test your program and run your program using the following input parameters:

```
[OutIm_Bilinear, OutIm_Nearest]=ImZoomShrink(lena, 150, 150);  
[OutIm_Bilinear, OutIm_Nearest]=ImZoomShrink(lena, 750, 750);  
[OutIm_Bilinear, OutIm_Nearest]=ImZoomShrink(lena, 500, 750);  
[OutIm_Bilinear, OutIm_Nearest]=ImZoomShrink(lena, 750, 500);
```

Please compare the output images generated by bilinear and nearest methods.

You can also compare your output images with the outputs of the following Matlab functions (type 'help imresize' in Matlab window to see help information):

```
Im = imresize(lena,[750, 750],'nearest');  
Im = imresize(lena,[750, 750],'bilinear');  
Im = imresize(lena,[500, 750],'nearest');  
Im = imresize(lena,[500, 750],'bilinear');
```