BMEN E4984: Biomedical Imaging Project Report Guide Lines

Note: 10-page limit on this assignment (excluding appendix and extra-credit)

Introduction (10 points):

• Briefly summarize the method you are implementing, describing each step of the algorithm. (1 page maximum)

Methods (20 points):

• Explanation of the Major Portions of the Code (i.e. Back Projection Implementation, and Filter Design). (1 page maximum)

Analysis (65 points):

- Discuss the effect of the following:
 - o Number of Projections Used
 - o Image Size
 - o Different Interpolation Schemes
 - Filter Types
 - Noise Tolerance
 - Resolution Limits
- Be sure to mention Efficiency and Accuracy (Mean Squared Error).
- Compare the results of your Code to those of matlab's *iradon* function.

Appendix (5 points):

• Please attach your <u>documented</u> code to the back of your project.

Extra Credit (20 points):

 Implement another method of your choice and repeat the above procedure.