**ECE 4522/5514: DIgital Signal Processing**

# Computer Assignment (CA) No. 7: Digital Filter Design

This assignment can be done entirely in MATLAB :)

Recall the filter design example presented in class:

<http://www.isip.piconepress.com/courses/msstate/ece_4773/lectures/current/lecture_40/lecture_40_04.html>

Start by replicating these designs in MATLAB. Then design an FIR equivalent using three different types of filters including one linear phase filter design. Finally, see if you can improve upon any of the designs presented in the lecture slide. Comment on the complexity of the FIR filters versus the IIR filters.

Extra credit will be awarded if you find a filter that meets the specs but results in a lower order or lower complexity.