**ECE 3512: SignalS – Continuous and Discrete**

# Recitation No. 4: Fourier Transform

The goal of this laboratory is to understand how to compute a Fourier Transform. **Remember that for all time domain plots, we will plot amplitude versus time in seconds, and for all frequency domain plots we plot magnitude and phase versus frequency in Hz.**

For each of the signals shown:

1. 
2. 
3. 
4. 
5. 

For each of these signals, plot the frequency response (magnitude and phase) using MATLAB. Compute the Fourier Transform analytically and demonstrate that your result makes sense by using MATLAB as appropriate.

For signal (2), design an RLC circuit that has the same transient response. Clearly identify the voltage or current you are measuring.