DSP and MATLAB Videos and References

See Video about the MATLAB desktop:

http://www.mathworks.com/videos/new-matlab-desktop-70403.html

MATLAB Tutorials

http://www.mathworks.com/academia/student_center/tutorials/?s_v1=59417286_

Intro to Fourier series & how to calculate them

http://www.youtube.com/watch?v=3Ai3dKVPLcQ

Frequency Analysis of Signals in MATLAB 15:21

Compute and interpret Fourier transforms of signals in MATLAB.

https://www.mathworks.com/academia/student_center/tutorials/signal-processing-tutorial-launchpad.html?confirmation_page#

Bode Plots 1st and 2nd Order

http://parlos.tamu.edu/MEEN651/E17.pdf

Interactive Signal Processing Tutorial Learn essential skills for designing and simulating signal processing systems in MATLAB and Simulink

https://www.mathworks.com/academia/student_center/tutorials/signal-processing-tutorial-launchpad.html?confirmation_page#

Filter References

FIR Filters, moving average, MATLAB and more

http://www.eas.uccs.edu/wickert/ece2610/lecture_notes/ece2610_chap5.pdf

Video Discrete-time convolution sum and example
http://m.youtube.com/watch?autoplay=1&v=yyTu0SXeW1M&desktop_uri=%252Fwatch%253Fv%253DyyTu0SXeW1M%2526autoplay%253D1

1. **Analog filter design:**

MATLAB has a variety of functions in its signal processing toolbox which support the design and analysis of analog and digital filters. We shall begin with analog filters and take a look at the most commonly used approximations.
http://doctord.dyndns.org/courses/Topics/Matlab/FilterDesign.pdf