Basics:

Digital Signal Processing Basics and Nyquist Sampling Theorem

https://www.youtube.com/watch?v=WgJMjDh0nLU

ADC Theory and Some practical Examples

https://www.youtube.com/watch?v=7X53_QCXbjk

DSP Lecture 14: The Sampling Theorem

https://www.youtube.com/watch?v=_Z7ErH7UTMs

DSP Lecture 10: The Discrete Fourier Transform and MATLAB

https://www.youtube.com/watch?v=jnxTpxB7HR8

ANALOG REFERENCES

Lecture 1 | The Fourier Transforms and its Applications

https://www.youtube.com/watch?v=gZNm7L96pfY&autoplay=1&app=desktop

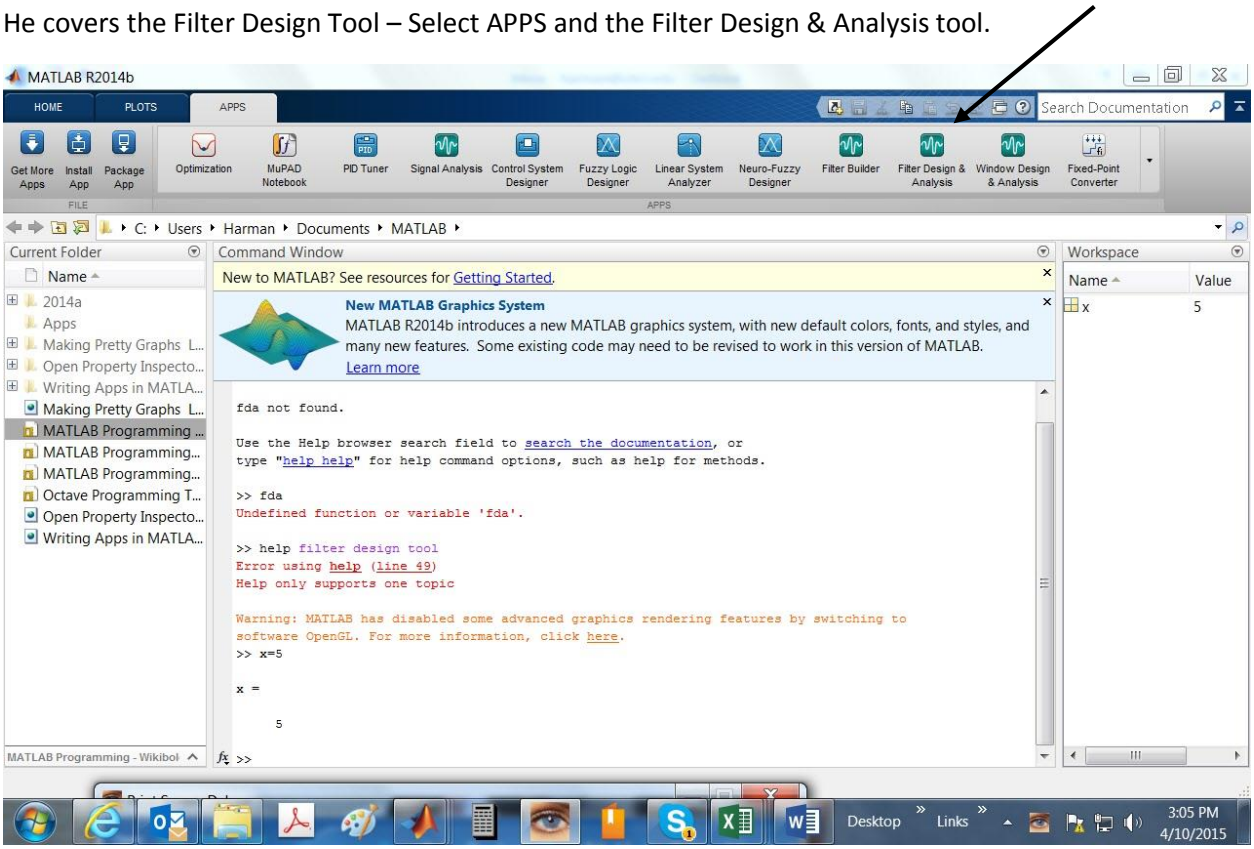
Butterworth Filters - Several Videos

https://www.youtube.com/watch?v=dmzikG1jZpU

Matlab Filtering Demo Part 1 obeidlab

https://www.youtube.com/watch?v=utrb6DN-Pqc

He covers the Filter Design Tool – Select APPS and the Filter Design & Analysis tool.



Note that the video is based on 2010 MATLAB but the use of the FDA is the same.

Comparison of analog and digital recording – WIKI Text file

http://en.m.wikipedia.org/wiki/Comparison_of_analog_and_digital_recording