EE 438 Approximate Syllabus.

0. Introduction.
1. Analysis of Discrete-Time Linear Time-Invariant Systems.
   - 1.1. Signals.
   - 1.2. Systems.
   - 1.3. Fourier Series and Transforms.
   - 1.4. Sampling.
   - 1.5. Z-transform.
   - 1.6. FFT.
   - 1.7. Random Sequences, Detection, Estimation.

0-1.6: 6 weeks
1.7: 3 weeks

The remaining five weeks will be devoted to some of the following:

Speech processing and linear predictive models;
Geometric interpretation of linear prediction and recursive estimation
Image processing: noise removal, multiscale filtering, compression, tomography.