Course Outline:

Week 1-F13- Metric Spaces
Week 2-F20- Norms, Orthogonal Spaces, Projections, Random Vectors
Week 3-F27- 2nd Order Representations, Functions of R.V., Gaussian R.V.
Week 4-M05- Orthogonal Projections, Gram-Schmidt Ort., Random Processes, Gaussian Pr.
Week 5-M12- Markov Proc., Random State Models
Week 6-M19- Analysis of Systems, Spectral Factorization, Rational Modeling, Estimation
Week 7-M26- Bayesian Estimation, MAP, MLE,MSE.
Week 8-N02- EXAM
Week 9-N09- MSE(cont.), Multiple Parameter Est, LMSE
Week10-N16- Geometric Interp., Wiener Filter
Week11-N23- No Class
Week12-N30- Wiener Filter(cont.), Levinson Filter
Week13-M07- Kalman Filter
Week14-M14- Kalman Filter (cont.)

References:
Introduction to Statistical Signal Processing Applications, Srinath et.al., Prentice-Hall.