**OE0702 Applied Matrix Theory**

Review of basic lin.alg. Canonical factorization. Q-Forms. Courant-Fischer minmax and related theorems. Perron-Frobenius theory. Matrix-stability. Inequalities,g-inverse (A-, Am, A+). Direct, iterative, projection and rotations methods forsolving linear systems and eigenvalues problems. Applications.

**References:**

1. A First Course in Linear Algebra, by Ken Kuttler, Lyryx, 2017.
2. Numerical Linear Algebra by LLoyd N. Trefethen and David Bau, III, SIAM
3. Introduction to Linear Algebra by Gilbert Strang, Wellesley-Cambridge Press, 4th edition