	Lecture Monday 10:15-11:45
1st week	Gauss elemination, vector spaces, linear independence, basis,
2nd week	basis transzform, linear transformation, determinant
3rd week	eigenvalues, eigenvectors, scalar product, orthogonal matrices, symmetric matrices, Gram-Schmidt orthogonalization,
4th week	trace, quadratic form, Gauss-Jordan elemination,
5th week	fundamental subspaces, dimension theorems, orthogonal projections,
6th week	method of smallest squares, positive definit matrices, singular values, polar decomposition, spectral decomposition,
7th week	sine Fourier-series, vibrating string, Bernoulli solution,
8th week	
9th week	midterm test
10th week	D'Alambert's solution, infinite length rod, Heat equation
11th week	vector analysis, line integral, conservative fields,
12th week	Curl-test on plane, on space, potential function, surface integrals,
13th week	Gauss theorem, Stokes theorem
14th week	Green theorem, surfaces