	Lecture Monday 10:15-11:45	Lecture Saturday 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,	primitive function, Riemann integral, properties, Fourier series
7th week	sine Fourier-series, vibrating string, Bernoulli solution,	
8th week	midterm test	
9th week		
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	