

	Lecture Monday 10:15-11:45	Practical course Monday 16:15-17:45
09.09.2019	Gauss elimination, vector spaces, linear independence, basis,	
16.09.2019	basis transform, linear transformation, determinant, Cramer rule,	Linear algebra I
23.09.2019	eigenvalues, eigenvectors, scalar product, orthogonal matrices, symmetric matrices, Gram-Schmidt orthogonalization,	
30.09.2019	trace, quadratic form, Gauss-Jordan elimination,	Linear algebra II
07.10.2019	fundamental subspaces, dimension theorems, orthogonal projections,	
14.10.2019	method of smallest squares, positive definite matrices, singular values, polar decomposition, spectral decomposition,	Linear algebra III
21.10.2019	Fourier-series, sine Fourier-series, vibrating string, Bernoulli solution,	
28.10.2019	D'Alembert's solution, infinite length rod, Heat equation	Partial diff. eq. I
04.11.2019	midterm test	
11.11.2019	vector analysis, line integral, conservative fields,	Partial diff. eq. II
18.11.2019	Curl-test on plane, on space, potential function, surface integrals,	
25.11.2019	made-up midterm test	vectoranalysis I
02.12.2019	Gauss theorem, Stokes theorem	
09.12.2019	Green theorem, surfaces	vectoranalysis II