

	Lecture Monday 10:15-11:45	Practical course Monday 12:15-13:45 & Monday 16:16-17:45
07.09.2020	Gauss elimination, vector spaces, linear independence, basis,	Linear algebra I
14.09.2020	basis transform, linear transformation, determinant	
21.09.2020	eigenvalues, eigenvectors, scalar product, orthogonal matrices, symmetric matrices, Gram-Schmidt orthogonalization,	Linear algebra II
28.09.2020	trace, quadratic form, Gauss-Jordan elimination,	
05.10.2020	fundamental subspaces, dimension theorems, orthogonal projections,	Linear algebra III
12.10.2020	method of smallest squares, positive definite matrices, singular values, polar decomposition, spectral decomposition,	
19.10.2020	Fourier-series, sine Fourier-series, vibrating string, Bernoulli solution,	Partial diff. eq. I
26.10.2020	D'Alembert's solution, infinite length rod, Heat equation	
02.11.2020	midterm test	Partial diff. eq. II
09.11.2020	vector analysis, line integral, conservative fields,	
16.11.2020	Curl-test on plane, on space, potential function, surface integrals,	vectoranalysis I
23.11.2020	made-up midterm test	
30.11.2020	Gauss theorem, Stokes theorem	vectoranalysis II
07.12.2020	Green theorem, surfaces	