

	Lecture Monday 10:15-11:45	Practical course Monday 12:15-13:45
06.09.2021	Gauss elimination, vector spaces, linear independence, basis,	
13.09.2021	basis transform, linear transformation, determinant	Linear algebra I
20.09.2021	eigenvalues, eigenvectors, scalar product, orthogonal matrices, symmetric matrices, Gram-Schmidt orthogonalization,	
27.09.2021	trace, quadratic form, Gauss-Jordan elimination,	Linear algebra II
04.10.2021	fundamental subspaces, dimension theorems, orthogonal projections,	
11.10.2021	method of smallest squares, positive definite matrices, singular values, polar decomposition, spectral decomposition,	Linear algebra III
18.10.2021	Fourier-series, sine Fourier-series, vibrating string, Bernoulli solution,	
25.10.2021	midterm test	Partial diff. eq. I
01.11.2021		
08.11.2021	D'Alembert's solution, infinite length rod, Heat equation	Partial diff. eq. II
15.11.2021	vector analysis, line integral, conservative fields,	
22.11.2021	Curl-test on plane, on space, potential function, surface integrals,	vectoranalysis I
29.11.2021	Gauss theorem, Stokes theorem	
06.12.2021	Green theorem, surfaces	vectoranalysis II