

	Lecture Wednesday 10:15-11:45
10.09.2025	Gauss-Jordan elimination, vector spaces, linear independence, basis,
17.09.2025	basis transform, linear transformation, determinant
24.09.2025	eigenvalues, eigenvectors, scalar product, orthogonal matrices, symmetric matrices,
01.10.2025	Gram-Schmidt orthogonalisation, trace, quadratic form,
08.10.2025	fundamental subspaces, dimension theorems, orthogonal projections, method of smallest squares,
15.10.2025	positive definite matrices, singular values, polar decomposition, spectral decomposition,
22.10.2025	sine Fourier-series, vibrating string, Bernoulli solution,
29.10.2025	D'Alembert's solution, Heat equation
05.11.2025	vector analysis, line integral, conservative fields,
12.11.2025	Curl-test on plane, on space, potential function,
19.11.2025	TDK
26.11.2025	surface integrals,
03.12.2025	Gauss theorem, Stokes theorem
10.12.2025	Green theorem, surfaces

1st midterm

2nd midterm