

TEXTBOOK vs. TOPIC

REMARK: Work in progress

Topic	Cheney-Kincaid	Moler
Introduction + MATLAB	Chapter 1	Sections 1.1-1.6
Floating Point Number System (Binary/Hex Representation ; mantissa/exponent) (Relative and Absolute Errors) (Cancellation)	Chapter 2	Section 1.7
Root Finding (Scalar: Bisection, Newton, Secant) (System: Newton, (optional - TBD) Broyden)	Chapter 3 (?) no text reference	Chapter 4 ++ pg. 233
(Fixed Point Iterations) (Rate of Convergence)		
Numerical Differentiation	Section 4.3	
Polynomial Interpolation	Sections 4.1-4.2	Section 3.1
Piecewise Polynomial Interp	Sections 9.1-9.2	Sections 3.2-3.7
Quadrature	Chapter 5	Chapter 6
Linear Equations	Chapter 7 ++ Section 8.1	Sections 2.1-2.10
Least Squares	Chapter 12	Chapter 5
ODE's	Chapter 10 ++ Chapter 11	Chapter 7
Eigenvalue Problems	Sections 8.3-8.4	Chapter 10