Some recommended texts in Scientific Computing

Introduction to Numerical Analysis texts:
Ascher & Greif, "A First Course in Numerical Methods"
Burden & Faires, "Introduction to Numerical Analysis"
Cheney & Kincaid, "Numerical Mathematics and Computing"
Forsythe, Malcolm & Moler, "Computer Methods for Mathematical Computations"

More Advanced, but still general:
Phillips & Taylor, "Theory and Applications of Numerical Analysis"
Schwartz, "Numerical Analysis, A Comprehensive Introduction"
Isaacson & Keller, "Analysis of Numerical Methods"

Numerical Linear Algebra and Matrix Computations:
Golub & Van Loan, "Matrix Computations" (3rd or 4^{th}dition)
Trefethen & Bau, "Numerical Linear Algebra"
Watkins, "Fundamentals of Matrix Computations"
Datta, "Numerical Linear Algebra and Applications"
Rice, "Matrix Computations and Mathematical Software"
Stewart, "Introduction to Matrix Computations"

More Specialized Numerical Linear Algebra:
Wilkinson, "The Algebraic Eigenvalue Problem"
Parlett, "The Symmetric Eigenvalue Problem"
Bjorck, "Numerical Methods for Least Squares Problems"
Higham, "Accuracy and Stability of Numerical Algorithms"
Stewart, "Matrix Algorithms"
Stewart & Sun, "Matrix Perturbation Theory"

Sparse Matrices:
Saad, "Iterative Methods for Sparse Linear Systems"
Duff, Erisman & Reid, "Direct Methods for Sparse Matrices"
George & Liu, "Solution of Large Sparse Positive Definite Systems"
Saad, "Numerical Methods for Large Eigenvalue Problems"

Differential Equations:
Iserles, "A First Course in the Numerical Analysis of Differential Equations"
Ames, "Numerical Methods for Partial Differential Equations"
Celia & Gray, "Numerical Methods for Differential Equations"

Algorithms:
Moret & Shapiro, "Algorithms from P to NP"
Aho, Hopcroft & Ullman, "The Design and Analysis of Computer Algorithms"
Kleinberg & Tardos, "Algorithm Design"