The following three books all deal with applications and computations. They do differ in the mathematical content and level of analysis.

The new Computational Linear Algebra text is the most rigorous. It requires multi-variable calculus and an appreciations for mathematical analysis. It uses the theorem-proof format and merges linear algebra and some concepts in numerical analysis.

The Computational Math text is directed at students interested in scientific computation who have some physics, multi-variable calculus, matrices and computation skills. The UCES (undergraduate, computation, engineering, science) format is used. Most sections are organized by an application, model, method, implementation and "analysis." Here "analysis " could refer to the study or modification of any of the four steps.

The Elements of Matrices text is intended for students with one semester of calculus. It uses a skills-oriented format and is useful for students in the mathematical sciences, engineering or math education. This provides the student with matrix skills to study more advanced math models and systems of differential equations.