**Programming with MATLAB 460**

**Chapter 1. Introduction**

Startup, Workspace, Constant and variables, Elementary functions, Format, Complex variables, how using help.

**Chapter 2. Array operations**

Simple array, addressing, orientation, ones and zeros, multiplication, searching, comparisons, size, Multidimensional arrays.

**Chapter 3. Matrix Operations**

Set of linear equations, Matrix functions, special matrices.

**Chapter 4. Relational and logical operations**

Relational operators, Logical operators, Relational and logical functions.

**Chapter 5. Control Flow**

*for* loops, *while* loops, *if-else-end* construction, *switch-case* construction.

**Chapter 6. Data Analysis**

Data analysis functions, roots, polynomials, curve fitting.

**Chapter 7. Two-dimensional graphics**

Plot command, line style, markers, colors, grids, axes, labels, legends, titles.

**Chapter 8. Numerical Analysis**

Root finding, integration, interpolation.

**References**

D. Hanselman and B. Littlefield, *"The student edition of MATLAB: version 5, user's guide*," The MathWoks, Inc, 1997.