**Catalog Description:**
Algebraic, exponential, and logarithmic functions. Matrix algebra. Applications to business.

**Prerequisite:**
Math Placement Level N; C- or better in 1075; or credit for 104; or ACT math score $\geq 22$ or SAT math score $\geq 520$ (scores must be less than 2 years old).

**Exclusions:**
Not open to students with credit for 1131 or for any math course numbered 1149 or higher, or a quarter-system math course numbered 150 or higher.

**Purpose of Course:**
Math 1130 is a pre-calculus course with a finance section slanted toward a business program. The applications are business related.

**Follow-up Course:**
Math 1131

**Text:**

**Topics List:**

**Ch. 1 Review of Algebra**
- 0.7 Equations, In Particular Linear Equations.
- 0.8 Quadratic Equations.
- 1.2 Linear Inequalities.
- 1.3 Applications of Inequalities.
- 1.6 Sequences

**Ch. 2 Functions**
- 2.1 Functions.
- 2.2 Special functions.
- 2.3 Combinations of functions.
- 2.4 Inverse Functions.
- 2.5 Graphs of functions
Ch. 3 Linear and Quadratic Functions
3.1 Lines
3.2 Applications and Linear Functions.
3.3 Quadratic Functions
3.4 Systems of Linear Equations.
3.6 Applications of Systems of Equations.

Ch. 4 Exponential and Logarithmic Functions
4.1 Exponential Functions.
4.2 Logarithmic functions.
4.3 Properties of Logarithms.
4.4 Logarithmic and Exponential Equations.

Ch. 5 Mathematics of Finance
5.1 Compound Interest.
5.2 Present Value.
5.3 Interest Compounded Continuously.
5.4 Annuities
5.5 Amortization of Loans.

Ch. 6 Matrix Algebra
6.1 Matrices.
6.2 Matrix Addition and Scalar Multiplication.
6.3 Matrix Multiplication.
6.4 Solving Systems by Reducing Matrices.
6.6 Inverses