MA 123
Elementary Calculus & Its Applications

I. Functions - Review
    A. Notation
    B. Evaluation
    C. Domain and Range
    D. Graphs
    E. Composition
    F. Models

II. Limits of a Function
    A. Definition
    B. Left and Right Handed Limits
    C. Graphical Limits
    D. Algebraic Limits
    E. Infinite Limits
    F. Limits at Infinity

III. Continuity
    A. Definition
    B. Graphical Description
    C. Algebraic Description

IV. Derivatives
    A. Definition
    B. Differentiation Formulas
        1. Power Rule
        2. Product Rule
        3. Quotient Rule
        4. The Chain Rule
    C. Higher Order Derivatives
    D. Applications
        1. Absolute Extrema
        2. Optimization

V. Graphing With Calculus
    A. Increasing and Decreasing Functions
    B. Relative Extrema
    C. Concavity
    D. Inflection Points
    E. Curve Sketching

VI. Exponential and Logarithmic Functions
    A. Equations
    B. Graphs
    C. Applications
    D. Derivatives

VII. Integration
    A. Antiderivatives
    B. Fundamental Theorem of Calculus
    C. Definite Integrals
    D. Indefinite Integrals
    E. Substitution Integrals
    F. Applications
        1. Rate of Change
        2. Areas Between Curves