Topics Assumed for Precalculus (Math 130)
(Partial List)

- Scientific notation.

- Substitution.

- Solving and graphing linear equations.

- The slope intercept equation ($y = mx + b$) for a non-vertical straight line.

- The point-slope form of equation for a non-vertical straight line.

- Solving word problems using one or two variables.

- Geometry.

- Algebraic representation of a picture or word problem.

- Operations with polynomials.

- Multiplying out expressions involving the sum or difference of two squares.

- Factoring.

- The negation of a product or of a quotient.

- Simplifying rational algebraic expressions.

- Solving rational equations.

- Proper cancellation in fractions.

- Rules of exponents.

- Simplification of expressions involving radicals.

- Fractional exponents.

- Solving a quadratic equation by factoring.

- Solving a quadratic equation by completing the square.

- Solving a quadratic equation by the quadratic formula.

- Graphing a quadratic equation of the form $y = a(x - h)^2 + k$.

Linear equations including the point-slope and slope-intercept forms, rules of exponents, fractional exponents, and graphing a quadratic equation will be covered again in Math 130 as review in order to reinforce the concepts.

Additonal Topics Assumed for Math 140 or 145
(Generally not covered or needed in Math 130)

- Absolute value and solving equations involving absolute value.

- Solving equations involving radicals (not too important for calculus).

- Solving simultaneous linear equations (not emphasized in calculus for the sciences).

- Solving inequalities: linear, quadratic, and absolute value.

- Graphing polynomials in factored form.