MA 220 – Topics List

I. Finding the slope/equation of a line
   - Given the slope and/or a point(s)
   - In word problems

II. Evaluating a function when the input is not numeric
   - For example: $\dfrac{f(x + \Delta x) - f(x)}{\Delta x}$

III. Composition of functions

IV. Finding limits
   - Using a table
   - From a graph
   - By direct substitution
   - By factoring and canceling
   - In the definition of derivative (limit of a difference quotient)

V. Finding values where function is not differentiable
   - Using a graph

VI. Using derivative rules
   - Power rule
   - Product rule
   - Quotient rule
   - General power rule (chain rule)

VII. Applications using the derivative
   - Finding the slope/equation of a tangent line; finding point(s) where slope of a tangent line has a given value
   - Finding the rate of change of a function
   - Finding a marginal function and its use in estimating actual change
   - Finding velocity
   - Finding the value of a derivative at a given point

VIII. Applications not using the derivative
   - Finding the y-value of a point
   - Finding the average rate of change
   - Finding the actual change
   - Estimating the slope of a graph at a point using a grid
   - Estimating the average rate of change and rate of change of a function using a grid