

Math 2200-01 (Calculus I) Spring 2020

Book 1



Calculus I: Single-variable calculus $y = f(x)$ for example (one input variable x , one output variable). Derivatives (rates of change): differential calculus.

Calculus II: also single-variable. Integral calculus.

Calculus III: multivariable i.e. several input variables and/or several output variables
eg. position $(x(t), y(t), z(t))$ of an object at time t : one input t , three output variables $x(t), y(t), z(t)$.

Eg. Temperature in this room as a function of position $T(x, y, z)$
(three inputs x, y, z ; one output T)

Eg. Wind velocity as a function of position: three inputs x, y, z ; three outputs are the components of wind velocity.