

Bio-calculus

Bio-calculus is a traditional calculus class covering limits, derivatives, and integrals, but with a focus on applications and interpretation. In addition to traditional calculus topics, we address applications of exponential and logarithmic functions and a modeling technique called discrete-time dynamical systems [1].

Definition 2 (equilibrium) *The **equilibrium** (or **equilibrium point**) of the discrete-time dynamical system*

$$x_{t+1} = f(x_t)$$

is a value x^ such that $x_{t+1} = x^*$ and $x_t = x^*$. In other words, $x_{t+1} = x_t = x^*$ and $x^* = f(x^*)$.*