

# Assignment 01

## STA 331 2.0 Stochastic Processes

**Due date: 01 Feb 2022, 9am**

Stochastic processes are widely used as mathematical models of systems and phenomena that appear to vary in a random manner. Find a practical application of a stochastic process and explain the following components of your application.

1. A brief description of your application
2. State space (Discrete or Continuous)
3. Parameter space (Discrete or continuous)
4. Transition probabilities
5. Is it a Markov chain process or not?
6. Assumptions used in modeling the phenomenon as a stochastic process
7. Any other important points
8. You should cite references appropriately according to the APA reference style.
9. Assignment should be written on .Rmd. You should submit the PDF output file only.
10. Do not include images with copyrights that do not allow reuse.
11. Avoid plagiarism.