Subject Name : **STOCHASTIC PROCESSES AND APPLICATIONS MA20208/ MA20106 Spring 2021-2022**

Introduction to Probability, Definition and classification of stochastic processes. **Discrete time Markov chains**, **Poisson Processes**, **Continuous time Markov chains**, **Renewal Phenomena**, **Martingales, Brownian Motion and related processes**, **Stochastic Calculus**.

References:

1. M.A. Pinsky, S. Karlin: An introduction to stochastic modeling, Academic press, 2011.
2. M. Liao: Applied Stochastic Processes, CRC press, 2015.
3. S.M. Ross: Introduction to Probability Models, Academic press.