

Course Title: Time Series Analysis in Data Science			
Course code: UDS 202	No. of credits: 4	L-T-P: 34-10-32	Learning hours: 60
Pre-requisite course code and title (if any): None			
Department: Natural and Applied Sciences			
Course coordinator:		Course instructor:	
Contact details:			
Course type: Major		Course offered in: Semester 4	
Course Description: The course provides an in-depth understanding of time series analysis, equipping students with skills in stationarity, noise, trend analysis and advanced forecasting techniques, supported by real-world case studies. The students will also learn to apply linear stochastic models, enhancing their quantitative skills and data-driven decision-making.			
Course objectives			
The course aims to provide a foundational understanding of:			
<ul style="list-style-type: none"> • Fundamentals of time series analysis, including concepts of outlier, noise, stationarity, trend and the application of linear stochastic models. • Various linear stochastic models and forecasting techniques, using real-world case studies to develop practical skills in making accurate time series prediction. 			