

ANL317 Business Forecasting

Level: 3

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JAN

Synopsis:

ANL317 Business Forecasting equips students with the skills and knowledge to use time-series modelling techniques to predict future trends and changes that can help businesses make proactive decisions. At the end of this course, students will be competent in executing the entire forecasting process – from preparing data, identifying specific patterns of a time series, to choosing an appropriate model that produces meaningful and actionable forecasting results.

Topics:

- Installation and introduction of SAS software
- Introduction of time-series forecasting
- Statistical properties of data
- Data exploration
- Data preparation
- Time series decomposition
- Simple moving average
- Exponential smoothing
- Stationarity
- ARMA (Autoregressive moving-average) models
- Modelling non-stationery time series data using ARIMA (Autoregressive integrated moving-average) models
- Seasonal ARIMA models

Textbooks:

: Business Forecasting, John E. Hanke and Dean Wichern
ISBN-13: 9781292036182

Learning Outcome:

- Discuss the applications of business forecasting techniques.
- Appraise the strengths and weaknesses of different forecasting techniques.
- Construct models for forecasting using software.
- Apply business forecasting techniques for generate forecasts.
- Prepare time series data for forecasting.
- Evaluate the performance of business forecasting models.

Assessment Strategies (Evening Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	PRE-COURSE QUIZ 1	2
	PRE-CLASS QUIZ 1	2
	PRE-CLASS QUIZ 2	2
	TUTOR-MARKED ASSIGNMENT 1	18
	PARTICIPATION 1	6
	GROUP BASED ASSIGNMENT 1	20
Overall Examinable Components	Written Exam	50
Total		100

Assessment Strategies (Online Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	PRE-CLASS QUIZ 1	2
	PRE-CLASS QUIZ 2	2
	PRE-COURSE QUIZ 1	2
	DISCUSSION BOARD 1	10
	GROUP BASED ASSIGNMENT 1	10
	PARTICIPATION 1	6
	TUTOR-MARKED ASSIGNMENT 1	18
Overall Examinable Components	Written Exam	50
Total		100