PROGRAM	**Master of Business Administration-Business Analytics**
SEMESTER	**II**
COURSE TITLE	**Business Forecasting (using EViews)-I**
COURSE CODE	**04MB0212**
COURSE CREDITS	**02**
COURSE DURATION	**28 hrs (28 sessions of 60 minutes each)**

COURSE OUTCOMES:

- Evaluate the qualitative and quantitative techniques of forecasting.
- Apply different explanatory/causal quantitative techniques of forecasting using EViews.
- Estimate the future demand, sales, causal relationships and so on to facilitate quantitative decision making.

COURSE CONTENTS:

Module No.	Unit/ Sub Unit	Sessions
I	**Introduction to Eviews**: Creating a Workfile, Importing Excel/text ASCII/SPSS data files to Eviews, Entering data manually, Eviews help menu, Examining the data- simple plots, descriptive statistics, creating/deleting variables, basic mathematical operations, Eviews functions. **Introduction to Forecasting**: meaning and significance of forecasting, types of forecasts, general steps in forecasting, forecasting techniques- qualitative techniques (market research method, sales force composite method, executive opinion method, Delphi method) and quantitative techniques (Explanatory model and Time-series model), Data requirement (time-series Vs Cross-sectional data).	8
II	**The Simple Linear Regression Model (SLRM):** Scatter plot, correlation, Estimating a simple linear regression, residual plot, prediction using SLRM, Hypothesis testing of regression coefficient, interval estimate of the slope, Coefficient of determination, Normality test of residuals (histogram and Jarque-Bera statistic).	**8**
III	**Multiple Regression Models:** Least square estimation of Multiple Regression Model (MRM), prediction using MRM, test of significance of regression coefficients, interval estimate of the regression coefficients, Goodness of fit (R-square, adjusted R-square), significance of the model (F-test), Standard Error of regression model, MRM with dummy variables (categorical variables) as predictors, interaction variable as predictor, the concepts of heteroskedasticity and multicollinearity.	**12**
	Practical: 1. Exercise on data import in Eviews and plots using Quick/Graph 2. Exercise using Eviews mathematical operators and functions 3. Descriptive statistics using Eviews 4. Scatter plot in SLRM 5. Estimating an SLRM 6. Plotting the least square residuals in SLRM 7. Forecasts using SLRM 8. Interval estimation for regression coefficients in SLRM 9. Test of significance of regression coefficient in SLRM 10. Normality test for residuals using histogram plot 11. Normality test for residuals using Jarque-Bera statistic 12. Calculation of coefficient of determination in SLRM and its interpretation	

	13. Least square estimation of Multiple Regression Model (MRM) 14. Prediction using MRM 15. Test of significance of regression coefficients in MRM 16. Interval estimate of the regression coefficients in MRM 17. Calculation of goodness of fit (R-square, adjusted R-square) and its interpretation 18. Test of Significance of the model in MRM (F-test) 19. Calculation and interpretation of Standard Error of Multiple Regression model 20. MRM with dummy variables (categorical variables) as predictors 21. MRM with Interaction variable as a predictor	

EVALUATION:

The students will be evaluated on a continuous basis and broadly follow the scheme given below:

		Weightage
A	Continuous Evaluation Component (Assignments / Quizzes /Class Participation etc.)	20% (C.E.C.)
B	Internal Assessment (MCQ)	30% (I.A.)
C	End-Semester Practical Examination	50% (External Assessment)

SUGGESTED READINGS:

TEXTBOOKS:

SNo	Author/s	Name of the book	Publisher	Edition and Year
T-01	R. Carter Hill, William E. Griffiths, George G. Judge	Using EViews for Undergraduate Econometrics	John Wiley and Sons	2nd, 2001
T-02	R. Carter Hill, William E. Griffiths, Guay C. Lim	Principles of Econometrics	John Wiley and Sons	5th, 2018

REFERENCE BOOKS:

S. No.	Author/s	Name of the book	Publisher	Edition and Year
R-01	Steven Nahmias and Tava Lennon Olsen	Production and Operations Analysis	Waveland Press, Inc (USA)	2015