

MBE I Year	MBE--C105		Semester-I		
	Quantitative Methods				
Time Allotted for End Semester Examination	Marks Allotted for Internal Assessment	Marks Allotted for End Semester Examination (ESE)	Maximum Marks (MM)	Total Credits	Maximum Hours
3 Hrs.	30(20+10)	70	100	03	40

OBJECTIVE:The objective of this paper is to make the students familiar with some basic statistical tools and linear programming technique. The main focus however is on their applications in business decision making.

- Mathematical basis of Managerial Decision-Concepts, steps in decision theory, Matrices- Addition, subtraction, Multiplication, Inverse of Matrices by cramer's Rules, Frequency Distribution and their Analysis, **Case Study1-** Utilization of quantitative methods in decision making among Nigerian university libraria. **(7Hours)**
- Probability Theory and Probability Distributions- Binomial, Poisson, Normal distribution. **(6Hours)**
- Correlation and Regression Analysis- Karl Pearson's coefficient of correlation, Rank correlation, Simple regression, Test of Hypothesis —t, Z and chi square tests, F- test, **Case Study2-** Correlation and Regression in quantitative Technique **(12Hours)**
- Analysis of Time Series: Components of a Time Series, Determination of secular Trend and Seasonal Variations in business data, Least Squares Method as a Tool for Forecasting. **(8Hours)**
- Linear Programming—Basic Concepts Formulation, Graphical Methods, Simplex Methods. **(7Hours)**

SUGGESTED READINGS:

1. Anderson, D.R., Sweeney, D.J., Williams, T.A., Camm, J.D., Cochran, J.J., Fry, M.J., & Ohlmann, J.W., (2013).
2. Quantitative Methods for Business. Cengage Learning, New Delhi.
3. Beri, G.C. (2005). Business Statistics. Tata McGraw Hill, New Delhi.
4. Brandimarte, P., (2012). Quantitative Methods: An Introduction for Business Management. John Wiley & Sons, USA.
5. Curwin, J., & Slater, R., (2008). Quantitative Methods for Business Decisions. Thomson Learning, London.
6. Dewhurst, F. (2006). Quantitative Methods for Business and Management. McGraw Hill, New Delhi.
7. Curwin, J., & Slater, R., (2004). Quantitative Methods: A Short Course. Thomson Learning, London.
8. Keller, G. (2009) Introduction to Statistics. Cengage Learning, New Delhi
9. Levine, D.M, Kribbeil, T. C, Berenson.M and Vishawanath, P.K. (2011). Basic Statistics: A First Course. Pearson Education. New Delhi.
10. Levin, R.I., & Rubin, D.S., (2009). Statistics for Management. Pearson Education Inc, New Delhi.
11. Sharma, J.K. (2007). Business Statistics. Pearson Education. New Delhi.
12. Sharma, J.K., (2009). Quantitative Techniques for Managerial Decisions. Macmillan Publishers India Ltd, New Delhi.
13. **Case Study 1:** U. Selong Edem, Olu Olat Lawal, Library Management, Volume: 18 Issue: 1, 1997
14. **Case Study 2:** <https://www.scribd.com/document/239631325/Quantitative-Techniques-in-Business-Case-Study>

NOTE:The list of cases, specific references and books including recent articles will be announced in the class by concerned teachers from time to time.