Course code		MATHEMATICS FOR MANAGEMENT for BBA Aviation Management	L	T	P	C
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Pre-requisite		+2 Business Maths	Syllabus Version		First	

Course Objectives:

To make the students to understand the process of solving mathematics and interpret the final results and to train the students to apply the mathematical techniques while solving business problems in their career. The course will also serve as a prerequisite for post graduate and specialized studies and research,

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1	Solve systems of linear equations by use of the matrix	K3
2	Be able to find the nature (maximum and minimum) of a turning point	K5
3	Outline the meaning of marginal revenue and marginal cost and their relevance for firm's profitability.	K1
4	Understand and compute the sampling distributions, sampling distributions of means and variances (S2) and the t- and F-distributions	K1
5	Summarize a regression analysis, and compute and interpret the coefficientof correlation.	K2

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Unit:1	MATRICES	14 --hours

Matrices: Fundamental ideas about matrices and their operational rules – Matrix multiplication Inversion of square matrices of not more than 3rd order- solving system of simultaneous linearequations.

Unit:2	SET THEORY AND MATRICES	14 --hours

Set theory – Introduction - Types of sets - set operation - Venn Diagrams - Mathematics of Finance - Simple and Compound Interest.(Simple problems only)

Unit:3	STATISTICAL METHODS	15 --hours

Meaning and Definitions of Statistics - Scope and Limitations. Collections of data –primary data and secondary data - Presentation of data by Diagrammatic and Graphical Method - Formation of Frequency Distribution. Measures of Central tendency - Arithmetic Mean, Median and Mode.

Unit:4	MEASURES OF VARIATION	14 --hours
Measures of Variation : Standard, Mean and Quartile deviations-Co efficient of variation. Simple Correlation - Karl Pearson's Co-efficient of correlation – Rank correlation - Regression lines.		
Unit:5	**ANALYSIS OF TIME SERIES AND INDEX NUMBER**	**13--hours**
Analysis of Time Series: Methods of Measuring Trend - Index number – Unweighted and Weighted indices–Tests of index numbers-Consumers price and cost of living indices.		
Unit:6	**CONTEMPORARY ISSUES**	**02 –hours**
Expert lectures, online seminars – webinars		
Questions in theory and problems carry 20% and 80% marks respectively Problems need to be simple keeping students' non-mathematical background		
	Total Lecture hours	**72 --hours**

Text Book(s)	
1	S.P. Gupta (S.P.): "Statistical Methods", Sultan Chand & Sons, 34th Edition,2007
2	Richard Levin & David Rubin, "Statistics for management", Prentice Hall, 2008
Reference Books	
1	Sundaresan and Jayaseelan- An Introduction to Business Mathematics and Statistical Method
2	P.R.Vittal, "Business Mathematics",Margham publications 2nd edition,2003.
3	S.P.Rajagopalan and R.Sattanathan,business statistics and Operation Research,Tata Mcgraw-Hell publishing company Ltd.,2nd edition,2009.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	http://www.dphu.org/uploads/attachements/books/books_5117_0.pdf
2	http://www.cognella.com/pdf/Step-by-Step-Business-Math-and statistics_sneak_preview.pdf

Course Designed By: **Dr. P.KOMARASAMY ,pksky@rediffmail.com**

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	M	S	S	S	S	M	S
CO2	S	S	S	S	S	S	S	S	S	S
CO3	S	M	M	S	S	S	M	M	S	S
CO4	M	S	M	S	M	M	S	M	S	M
CO5	S	S	S	S	M	S	S	S	S	M

*S-Strong; M-Medium; L-Low