



SYMBIOSIS COLLEGE OF ARTS AND COMMERCE

An Empowered Autonomous College | Under Savitribai Phule Pune University

Reaccredited 'A+' with 3.51 CGPA For Third Cycle By NAAC | College with Potential for Excellence

UG Curriculum

PROGRAM	BA	BA(Hon)	B.Com	B.Com(Hon)	M.Com	MA - Eng	MA- Eco	MA- Psy
Tick ✓								

SEMESTER	1	2	3	4	5	6	7	8
Tick ✓								

SPECIALIZATIONS									
BA	Eco	Eng	Psy	Gen					
Tick ✓									
BCOM	Costing	Banking	Entrep	MKT	Fin & Acc	Mgt Acc	HRM	Bus Analytics	Gen
Tick ✓									

Name of the Department	Symbiosis Centre for Liberal Arts
Name of Head of Department	Prof.Dr.Hilda David
Title of the Course	Introduction to Data analysis
Course Code	HS36
Type of Course (New / Revised)	New
Number of Credits	3

Course Outcomes
CO 1: Examine a pragmatic approach to data analysis.
CO 2: Explain statistical tools, which help to represent and visualize data.
CO 3: Apply statistical measures to analyse and interpret data using Microsoft Excel.
CO 4: Devise methods to handle raw data, summarize the data and learn various tabular and graphical representation techniques.
CO 5: Testing their data analysing and interpretation skills.

DETAILS OF SYLLABUS



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UNIT NUMBER	DETAILS	NUMBER OF LECTURES
1	Introduction to Microsoft Excel: Components of an Excel Spreadsheet, Loading Excel, Taskpanes, Help, Saving a workbook, Opening an existing workbook, Closing a workbook, Switch to a new worksheet, Creating a new worksheet, Opening a new workbook, Printing and print preview, What to do if you encounter a damaged Excel file.	1
2	Data Handling: Entering Data and Formatting, Entering data in a cell, Modifying data in a cell, Entering data into a range, Cancelling a cell entry, Undoing a cell entry, Entering numbers, Entering dates or times, Entering text, Formatting a worksheet, Column widths and row heights, Naming a worksheet, Inserting and deleting rows and columns, The clear command, Spell checking, AutoFormat.	2
3	Performing Calculations: Entering formulae, Understanding operators, Selecting cells and moving around worksheet, Reference operators, Editing a formula, Creating and applying names, Copying formulae to adjacent cells, Using absolute and relative references, IF function, Adding a column of numbers using AutoSum, Insert function, Copying formulae and values, Excel arrays, Install Excel ToolPak add-ins.	3
4	Presenting Results: Inserting Excel features into Microsoft Word, Inserting a chart from an Excel worksheet into Microsoft Word, Numerical Skills, Excel and Solving Algebraic Problems, Excel scientific notation, Squares, Square roots, Indices or the power of a number.	2
5	Excel Mathematical and Statistical Functions: Mathematical functions, Excel arrays, Excel statistical functions, Coordinate Geometry, The coordinates of a point, Excel and plotting straight line graphs from an equation, Linear equation parameters m and c, Use Excel to calculate the equation of the line given data points.	4
6	Visualizing and Presenting Data: The Different Types of Data Variable, Tables, What a table looks like, Creating a frequency distribution, Types of data, Types of data, Creating a table using Excel Pivot Table, Principles of table construction.	4
7	Graphical Representation of Data: Bar charts, Pie charts, Histograms, Frequency polygon, Scatter and time series plots, Superimposing two sets of data onto one graph.	4
8	Data Descriptors and Measures of Dispersion: Measures of Central Tendency, Mean, median, and mode, Averages from frequency distributions, Weighted averages, The range, The standard deviation and variance, The coefficient of variation, Measures of skewness and kurtosis.	8
9	Linear Correlation and Regression Analysis: Linear Correlation Analysis, Scatter plot, Covariance, Pearson's correlation coefficient, Spearman's rank correlation coefficient, Linear Regression Analysis, Construct scatter plot to identify model, Fit line to sample data, Sum of squares defined, Regression assumptions, Test model reliability, Excel ToolPak Regression solution, Introduction to non-linear regression, Introduction to multiple regression analysis.	10
10	Time Series Data and Analysis: Introduction to Time Series Data, Stationary and non-stationary time series, Seasonal time series,	7



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	Univariate and multivariate methods, Scaling the time series, Fitting a linear and exponential trend to a time series, Using a trend chart function to forecast time series, Trend parameters and calculations.	
	Total Number of Hours	45
Reference List		
1) Business statistics using Excel, Glyn Davis and Branko Pecar, OUP Oxford. 2) Shelly Cashman Series Microsoft Office 365 & Office 2016: Introductory, Misty E Vermaat, Steven M Freund, Corinne Hoisington, Eric Schmieder, Mary Z Last, CENGAGE Learning Custom Publishing. 3) Statistics with Microsoft Excel, Beverly Dretzke, 5 th Ed, Pearson. 4) Statistical Analysis with Excel For Dummies, 4th Ed, Joseph Schmuller, For Dummies.		

Prof.Dr.Hilda David

Name and Sign of Head