

As Per NEP 2020

University of Mumbai



Syllabus for Basket of VSC for Commerce Faculty	
Board of Studies in Statistics	
UG First Year Programme	
Semester - I	
Title of Paper	Credits 2
I) Data Analysis using Excel (VSC)	2 credit
From the Academic Year	2024-25

VSC - Vocation Skill Course

Semester I

Heading	Particulars
Description of the Course:	Data Analysis using Excel
Vertical:	Vocational Skill Courses (VSC)
Type	Theory
Credits:	02
Hours Allotted:	30 hours
Marks Allotted:	50 marks
Course Objectives: Students will able to, CO 01. Know about Excel worksheet CO 02. Know how to format spreadsheet. CO 03. Learn different functions of Excel.	
Course Outcomes On successful completion of the course Students Should be able to, OC 01. Know Excel worksheet, spreadsheet and Excel window. OC 02. Know formatting of cell. OC 03. Know spreadsheet tools such as splitting, freezing, copying, pasting etc. OC 04. Know standard mathematical, financial, information functions of Excel. OC 05. Draw diagrams and graphs using Excel OC 06. Draw summary statistics using Excel.	
Modules	
Module I	Introduction to MS-Excel
Module II	Elementary Statistics using MS-Excel.
References	

Detailed Syllabus

Course Name: Data Analysis Using Excel

Module		Number of lectures
I	Introduction to MS-Excel - About Excel and Microsoft, Excel spreadsheet, excel window, title bar, menu bar, standard tool bar, formula bar, workbook and sheets. - Selecting rows and columns, inserting / deleting rows and columns, cell, cell address, cell formatting, conditional formatting, hiding/unhiding of columns and rows, use of paste and paste special. - Spreadsheet tools: moving between spreadsheets, inserting, deleting, renaming spreadsheets, splitting the screen, freezing pane, copying and pasting data between spreadsheets, protecting worksheets. - Range, entering information into a range, autofill,	15

	functionality using range.	
II	Elementary Statistics using MS-Excel • Formula functions: financial functions, date and time functions, information functions, concatenate function, find function, text functions, ceiling, floor, round functions, trigonometric functions, elementary Mathematical functions. • creating different charts, formatting chart objects. • creating pivot tables, properties of pivot tables. • Elementary Statistical functions: finding arithmetic (average), geometric (geomean), harmonic means (harmean), median (median), mode (mode), partition values (percentile.exc, quartile.exc), coefficients of skewness (skew), kurtosis (kurt).	15

References:

- Salkind, Neil, J. (2015): Excel Statistics: A quick guide. Sage Publications.
- Walkenbach, J. (2015): Excel 2016 Bible: The comprehensive tutorial resource. Wiley.

Format of Question Paper:

Internal Continuous Assessment: (20 marks)

Assignment/viva Quizzes, Class Tests, presentation, project, assignment etc	Class Test	Total
05	15	20

Semester End Examination: (30 marks)

Semester End Examination will be of 30 marks of 01 hour duration covering entire syllabus of the semester. Examiners should frame sub questions for Q.1, Q2 and Q3. Each question carrying 15 marks. Attempt any two out of three questions.

Theory Question Paper Pattern:

Q 1	Max. marks: 15	Attempts any two questions out of Three.
Q 2	Max. marks: 15	
Q 3	Max. marks: 15	

VSC - Vocation Skill Course

Semester II

Course Name: Statistical Data analysis using Advanced EXCEL.

Heading	Particulars
Description of the Course:	Statistical Data Analysis Using Advance Excel
Vertical:	Vocational Skill Courses (VSC)
Type	Theory
Credits:	02
Hours Allotted:	30 hours
Marks Allotted:	50 marks
Course Objectives: Students will able to, CO 01. Know about advance concepts of MS-Excel. CO 02. Know how to write a macro in MS-Excel. CO 03. Learn advance statistical functions of MS-Excel.	
Course Outcomes On successful completion of the course Students Should be able to, OC 01. Know how to sort, filter in MS-Excel. OC 02. Know lookup, referencing and logical functions. OC 03. Know drawing scatter diagram and fit a simple linear regression using MS-Excel. OC 04. Know plotting of probability functions of standard statistical distributions. OC 05. Solve testing problems for one and two populations based on large sample.	
Modules	
Module I	Advance concepts of MS-Excel.
Module II	Advance Statistical analysis using MS-Excel
References	
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Detailed Syllabus

Course Name: Data Analysis Using Advance Excel

Module		Number of lectures
I	Advance concepts of MS-Excel. • Sorting, filtering, lookup and reference functions, logical functions, • Writing macro • advanced statistical functions like count, countif, countblank, maxifs, minifs, frequency, averageif, averageifs, confidence.norm, intercept.	15

II	Advance Statistical analysis using MS-Excel - Scatter diagram, correlation, simple linear regression, (pearson, correl, - Finding probabilities (prob), pmf/pdf, cdf plots for different parameters for binomial, Poisson, hypergeometric, normal distributions. Plots for convergence of binomial to Poisson, plots for application of central limit theorem (norm.dist, norm.inv, norm.s.dist, norm.s.inv, binom.dist, hypgeom.dist) - Large sample test	15
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References

- Salkind, Neil, J. (2015): Excel Statistics: A quick guide. Sage Publications.
- Walkenbach, J. (2015): Excel 2016 Bible: The comprehensive tutorial resource. Wiley.

Format of Question Paper:

Internal Continuous Assessment: (20 marks)

Assignment/viva Quizzes, Class Tests, presentation, project, assignment etc	Class Test	Total
05	15	20

Semester End Examination: (30 marks)

Semester End Examination will be of 30 marks of 01 hour duration covering entire syllabus of the semester. Examiners should frame sub questions for Q.1, Q2 and Q3. Each question carrying 15 marks. Attempt any two out of three questions.

Theory Question Paper Pattern:

Q 1	Max. marks: 15	Attempts any two questions out of Three.
Q 2	Max. marks: 15	
Q 3	Max. marks: 15	

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Board of Studies in
Statistics**

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Dr. Madhav R. Rajwade
Faculty of Science &
Technology**

**Sign of the
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