

AC – 24/05/2024  
Item No. – 6.6 Sem. II (1a)

## As Per NEP 2020

# University of Mumbai



<b>Syllabus for Basket of VSC for Commerce Faculty</b>	
<b>Board of Studies in Statistics</b>	
<b>UG First Year Programme</b>	
<b>Semester - II</b>	
<b>Title of Paper</b>	<b>Credits 2</b>
<b>I) Statistical Data Analysis Using Advance Excel (VSC)</b>	<b>2 credit</b>
<b>From the Academic Year</b>	<b>2024-25</b>

# VSC - Vocation Skill Course

## Semester II

**Course Name: Statistical Data analysis using Advanced EXCEL.**

<b>Heading</b>	<b>Particulars</b>
<b>Description of the Course:</b>	<b>Statistical Data Analysis Using Advance Excel</b>
<b>Vertical:</b>	<b>Vocational Skill Courses (VSC)</b>
<b>Type</b>	<b>Theory</b>
<b>Credits:</b>	<b>02</b>
<b>Hours Allotted:</b>	<b>30 hours</b>
<b>Marks Allotted:</b>	<b>50 marks</b>
<b>Course Objectives:</b> 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.	
<b>Course Outcomes</b> <b>On successful completion of the course Students Should be able to,</b> 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.	
<b>Modules</b>	
<b>Module I</b>	Advance concepts of MS-Excel.
<b>Module II</b>	Advance Statistical analysis using MS-Excel
<b>References</b>	
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## Detailed Syllabus

**Course Name: Data Analysis Using Advance Excel**

<b>Module</b>		<b>Number of lectures</b>
I	Advance concepts of MS-Excel. <ul style="list-style-type: none"> <li>• Sorting, filtering, lookup and reference functions, logical functions,</li> <li>• Writing macro</li> <li>• advanced statistical functions like count, countif, countblank, maxifs, minifs, frequency, averageif, averageifs, confidence.norm, intercept.</li> </ul>	15

II	Advance Statistical analysis using MS-Excel <ul style="list-style-type: none"> <li>• Scatter diagram, correlation, simple linear regression, (pearson, correl,</li> <li>• 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)</li> <li>• Large sample test</li> </ul>	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	

**Sign of the BOS  
Chairman  
Dr. Santosh Gite  
Board of Studies in  
Statistics**

**Sign of the  
Offg. Associate Dean  
Dr. Madhav R. Rajwade  
Faculty of Science &  
Technology**

**Sign of the  
Offg. Dean  
Prof. Shivram S. Garje  
Faculty of Science &  
Technology**