

## I – Academic Planner

### A. Teaching Plan (Year : 2021, Semester: Odd )

Teacher's Name **DR. SURENDRA KUMAR** Department **STATISTICS**

S. No.	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit	Start Date	EndDate
1	32371502	STATISTICAL COMPUTING USING C	CORE	<b>Theory and Practical Work</b> 1. Overview of C, Variables and Data Types 2. Operations and Expressions 3. Managing Input and Output Operations 4. Decision Making and Branching 5. Decision Making and Looping 6. Arrays 7. Character arrays, Strings and File Management in C 8. User -Defined Functions 9. Structure and Pointers 10. Dynamic Memory Allocations and The Preprocessor.	20/7/21  2/8/21 16/8/21 23/8/21 30/8/21 6/8/21 13/9/21  27/9/21 18/10/21 1/11/21	31/7/21  14/8/21 21/8/21. 28/8/21 4/9/21 11/9/21 25/9/21  9/10/21 30/10/21 15/11/21
2	32375301	Basics of Statistical Inference	GE	<b>Theory and Practical Work</b> 1. Analysis of Variance 2. Design of Experiment 3. Non-Parametric Test	16/8/21 20/9/21 1/11/21	18/9/21 30/10/21 8/12/21

### B. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Teachers

Event Topic	Creation and development of MOOCs while managing online classes
Type / Nature (FDP/Webinar/Workshop etc.)	FDP
Organizing In-charge	Keshav Mahavidyalaya, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi.

<b>Details regarding invited Resource Person</b>					
<b>Nature of Participation (e.g. Invited Speaker, Participant etc.)</b>		<b>Participant</b>			
<b>Date/s</b>	24thAugust–31stAugust2021	<b>Timing/s</b>	2:00PM -5:15PM	<b>Mode</b>	<b>ONLINE</b>

**C. Internal Assessment: House Exam (Test/Presentation etc.)&Assignment\***

<b>Course Code</b>	<b>Course Name</b>	<b>Unique Paper Code</b>	<b>Topic Name</b>	<b>Day and Date</b>	<b>Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining</b>
568	BSc.(H), Statistics	32371502	Class Test	21/10/2021	25/10/21- 28/10/2021
568	BSc.(H), Statistics	32375301	Assignment	2/11/21	5/11/21- 8/11/2021
568	BSc.(H), Statistics -GE	32375301	Class Test	12/11/21	15/11/21-18/11/2021
568	BSc.(H), Statistics -GE	32375301	Assignment	25/11/21	28/11/21-30/11/2021

**\*Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester**

**D. Organization of Department/College Society Meetings by Staff Advisor/Convener**

<b>Department/Society</b>	<b>Meeting Date</b>	<b>Purpose</b>


**E. College Functions**

College Function	Function Date	Role to be played

**For Departments**

**A. Department activities for students – Election/Freshers/Welcome/Farewell/Department Seminars/Society functions**

Event	Date	Timing	Venue	Event In-charge / Supervisor
Department Election				
Fresher's Welcome				
Farewell				
Department Society functions				
Department Seminars				
Any Other ( )				

**B. Outstation Field Visit for Students**

Project Name / Paper Name	
---------------------------	--

Destination		Travel Mode	
Departure Month		Return	
Faculty-in-Charge		Number of Students going	

**C. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Department**

Event Topic					
Type / Nature (FDP/Webinar/Workshop etc.)					
Organizing In-charge					
Details regarding invited Resource Person					
Nature of Participation (e.g. Invited Speaker, Participant etc.)					
Date/s		Timing/s		Mode	

## I – Academic Planner

### B. Teaching Plan (Year : 2022 Semester: Even )

Teacher's Name DR. SURENDRA KUMAR Department STATISTICS

S. No.	UPC	Paper Name	Core/A ECC/G E/SEC	Topic/Unit	Start Date	End Date
1	32371403	Statistical Quality Control	CORE	<b>Theory and Practical Work</b> Unit-I Unit-II Unit-III Unit-IV	3/1/22 24/1/22 28/2/22 28/3/22	22/1/22 26/2/22 26/3/22 28/4/22
2	32375902	Applied Statistics	GE	<b>Theory and Practical Work</b> Unit –I Unit-II	17/1/22 28/02/22	26/2/22 28/04/22
3	32371202	Algebra	CORE	<b>Practical Work</b> For a real Skew Symmetric matrix S, show that matrix A defined by $(I-S)(I+S)^{-1}$ is an orthogonal matrix, Reducing a Quadratic Form to its canonical form and finding its rank.  Finding the product of two matrices by considering partitioned matrices, finding inverse of a matrix by partitioning and finding Generalized Inverse of a matrix and symmetric generalized inverse of a matrix.  To show that matrix A defined as $A = (I - X(X'X)^{-1}X')$ is idempotent. Also, determine its rank; Repeat the process by finding a generalized inverse of $X'X$ if inverse does not exist.  Find $XGX'$ for any X of order $n \times k$ , where G is generalized inverse and show that $XGX'$ is invariant with respect to G. To find whether a given set of vectors is linearly dependent or linearly independent.	18/04/22  2/05/22  30/05/22  27/06/22	30/04/22  28/05/22  25/6/22  26/07/22
4	32371401	Statistical Inference	CORE	<b>Practical Work</b> Unit-I Unit-II Unit-III Unit-IV	17/01/22 07/02/22 28/02/22 18/03/22	05/02/22 26/02/22 26/03/22 28/04/22
5	32373902	Software R	SEC	<b>Practical Work</b> Introduction to R, Installation of packages and modules, loading of data, playing with	03/01/22	8/01/22

			<p>arithmetic expressions. Introduction to data types viz. data frame, matrix, list and other inbuilt functions along with usage.</p> <p>Commands and practical based on Graphical representation and interpretation viz. bar-plot, pie-chart, and box plot, stem-leaf, histograms (equal class intervals and unequal class intervals), frequency polygon, ogives with graphical summaries of data.</p> <p>Generate automated reports giving detailed descriptive statistics. Practical work.Import data, code editing, Scatter plot; correlation and lines of regression. Curvilinear regression.</p> <p>Generate automated reports giving detailed descriptive statistics. Practical work.Import data, code editing, Scatter plot; correlation and lines of regression. Curvilinear regression.</p> <p>Application problems based on fitting of suitable distribution. Practical work.</p> <p>Sampling procedures. Q-Q plot, Multiple Regression. Practical work. Basics of statistical inference in order to understand hypothesis testing, compute p-values and confidence intervals.</p> <p>Simple analysis and create and manage statistical analysis projects. And presentations</p> <p>Doubts and presentation</p>	10/01/22	15/01/22
				17/01/22	29/01/22
				31/01/22	12/02/22
				14/02/22	20/03/22
				21/03/22	9/04/22
				11/04/22	18/04/22
				18/04/22	28/0/22

**F. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Teachers**

<b>Event Topic</b>	<b>Academic Writing And Online Resources for Research</b>				
<b>Type / Nature (FDP/Webinar/Workshop etc.)</b>	<b>FDP</b>				
<b>Organizing In-charge</b>	Vardhaman College, Bijnor, U.P. in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi.				
<b>Details regarding invited Resource Person</b>					
<b>Nature of Participation (e.g. Invited Speaker, Participant etc.)</b>	<b>Participant</b>				
<b>Date/s</b>	27.06.2022 to 02.07.2022	<b>Timing/s</b>	2:00PM- 5:00PM	<b>Mode</b>	<b>Online</b>

**G. Internal Assessment: House Exam (Test/Presentation etc.)&Assignment\***

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
568	BSc.(H), Statistics	32371403	Test	28/03/2022 Monday	1/4/22-5/4/22
568	BSc.(H), Statistics	32371403	Practical Exam	07/05/22 Saturday	-
568	BSc.(H), Statistics	32375902	test	11/4/22 Tuesday	14/4/22-16/4/22
568	BSc.(H), Statistics	32375902	Practical Exam	06/5/22 Friday	-

\*Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester

**H. Organization of Department/College Society Meetings by Staff Advisor/Convener**

Department/Society	Meeting Date	Purpose

**I. College Functions**

College Function	Function Date	Role to be played





**F. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Department**

<b>Event Topic</b>					
<b>Type / Nature (FDP/Webinar/Workshop etc.)</b>					
<b>Organizing In-charge</b>					
<b>Details regarding invited Resource Person</b>					
<b>Nature of Participation (e.g. Invited Speaker, Participant etc.)</b>					
<b>Date/s</b>		<b>Timing/s</b>		<b>Mode</b>	