



# SRR & CVR GOVERNMENT DEGEREE COLLEGE VIJAYAWADA



*An Autonomous, ISO certified, Ranked by NIRF in band 101-150 in 2020 &  
NAAAC accredited Institution with "A" Grade (IV Cycle)  
Affiliated to Krishna University, Machilipatnam  
Internal Quality Assurance Cell*

## **Department of Statistics**

<b>Date(s)</b>	<b>16-02-2024 to 20-04-2024</b>
<b>Conducted through (DRC/JKC/ELF/NCC/NS S/Departments etc.</b>	<b>Department</b>
<b>Nature of activity (seminar/Workshop/Extn. Lecture/CIA activity, etc)</b>	<b>Certificate Course / Skill Development</b>
<b>Title of the Activity</b>	<b>Basic Statistics with 'R'</b>
<b>Name of the Department/Committee</b>	<b>Statistics</b>
<b>Details of Resource Persons(Name, Designation etc.,) if any</b>	<b>K. Ashok, HOD P. Ramesh, Lecturer</b>
<b>No of students Attended</b>	<b>20</b>
<b>Year and Class</b>	<b>I &amp; II year BSc and BCom</b>
<b>Name of the Lecturers planned &amp; conducted the activity</b>	<b>Department</b>
<b>Remarks</b>	<b>Duration: 40 Hrs</b>

## Report:

Certificate course in 'Basic Statistics with R' was conducted by the department of Statistics for the A.Y 2023-24 as per BOS-2023-24 for UG students from 16-02-2024 to 20-04-2024 under the guidance of IQAC. Training sessions on 'R' are conducted in Lab for a total of 40 hrs (30 hrs for training + 10 hrs for practice & assignments) by the faculty of the department K. Ashok and P. Ramesh.

At the end Examination was conducted in lab as per BOS. Course completion certificates were distributed to the students by the Principal madam, Dr. K. Bhagya Lakshmi and IQAC co-ordinator Dr. J. Nageswara Rao on the occasion of National Statistics Day 2024.

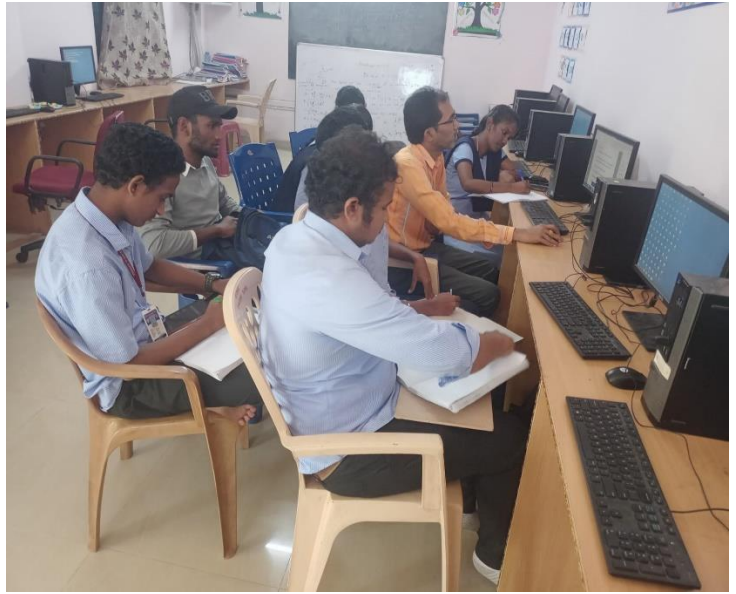
No. of students attended: 20

No of students registered for exam: 18

### Out Comes:

- 1.All the Students enthusiastically attended and well-trained in analyzing the data using 'R'.
- 2.Trained and learned various tools and packages in 'R' to draw insights of a data.
3. Got the skill to use 'R' software for analyzing and visualizing the data









S.R.R. & C.V.R. GOVT. DEGREE COLLEGE (AUTONOMOUS) VIJAYAWADA-04  
 NAAC 'A' (CYCLE-IV WITH CGPA:3.03) - ESTD:1937

FIRST YEAR SEM-H: MID-2 EXAMINATIONS: APR-2024

4/5/24 2-4 P

Name of the Subject:

Certificate Course

Date:

Time:

Name of the Programme:

B.Sc. Honours - DATA SCIENCE

Booklet starts with R

S.No	Regd. No.	Student Name	SL	Booklet No. (SR)	Marks Obtained	Sign of the Student
1	23367001	Adapa Devi Sri	TEL	1	50	A. Deviseet
2	23367002	Amara Naveena	TEL	2	47	A. Naveena
3	23367003	Dake Leela Ram Charan	TEL	3	47	D.L. Charan
4	23367004	Derasapu Durga Rao	TEL	4	47	D. Durga Rao
5	23367005	Gottapu Saikumar	TEL	5	50	G. Sai Kumar
6	23367006	Katthula Chandu	TEL	6	47	K. Chandu
7	23367007	Kola Ramu	TEL	7	47	K. Ramu
8	23367008	Kottu Sivalahari	TEL	8	47	K. Sivalahari
9	23367009	Mujje Veeranjanyulu	HIN	9	47	M. Veeranjanyulu
10	23367010	Ponnuri Pooja Sri	TEL	10	47	P. Pooja Sri
11	23367011	Samayamantula Revanth	TEL	11	47	S. Revanth
12	23367012	Samayamantula Rohit	TEL	12	50	S. Rohith
13	23367013	Teku Jogi Babu	TEL	13	47	T. Jogi Babu

14.	22307219	P. Siva Nagini	Eng	14	45	P. Siva Nagini
15	22307215	P. Deepthi	Eng	15	45	P. Deepthi
16	22307225	V. Sai Tejaswi	Eng	16	45	V. Sai Tejaswi
17	22206208	V. Varshini	Eng	17	45	V. Varshini
18.	22304214	M. Trivikram	Eng	18	42	Trivikram.M.

No. of Students Allotted: 18

No. of Students Present: 18

No. of Students Absent: 0

not Revised: 2

Name & Signature of the Invigilator

Name & Signature of the Examiner



**SRR & CVR GOVERNMENT DEGREE COLLEGE  
VIJAYAWADA**



An Autonomous, ISO certified & NAAC accredited Institution with "A" Grade (4<sup>th</sup> Cycle)  
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Internal Quality Assurance Cell

**Certificate**

This is to certify that **A.Devi Sri** studying **I B.Sc Data Science** has  
successfully completed the certificate course on " **Basic Statistics with 'R'** "  
during the period **16-02-2024 to 20-04-2024** with Grade **A<sup>+</sup>** conducted by  
**DEPARTMENT OF STATISTICS.**

  
Incharge  
Dept of Statistics

  
IQAC- Coordinator

  
Principal

**All Certificates:**



R\_cert\_2023-24.pdf

Date: 05-02-2024

**From**

Lecturer In-Charge

Department of Statistics

SRR & CVR Government Degree College(A)

Vijayawada

**To**

The Principal

SRR & CVR Government Degree College(A)

Vijayawada

Respected Madam,

Sub: Certificate Course-Basic Statistics with 'R' – Permission to run the course  
– Requesting – Regd.

Ref: Approval of proposal in BOS, AC and GB meetings 2023-24.

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As per the reference cited above, the Department of Statistics is going to run the certificate course titled "Basics of Statistics with 'R' from 16-02-2024. Details of the course, schedule with teaching plan and list of willing students are attached. So, I request you to give permission to run the course during scheduled/zero hours in Computer Applications lab.

Thanking you madam.

Yours faithfully



(K.Ashok)

5.2.2024

# SRR & CVR Government Degree College (A):Vijayawada

## Department of Statistics

Certificate Course : Basic Statistics with R

Duration : 40 Hours

### Proposed Schedule & Teaching Plan 2023-24

S. No	Month & Week	Date(s)	Time	Topic	T	P/A	Methodology
1	Feb/2	16-02-24	3:30 to 5:30	Introduction to R - Basics	2		Lecture
2	Feb/3	22-02-24 23-02-24 24-02-24	3:30 to 5:30	Math & Vector operations with R	4	2	Lecture, Demonstration, Self-practice, Assignment1
3	Feb/4	29-02-24	3:30 to 5:30	Handling with Missing data in R Matrices with R	2		Lecture, Demonstration, Self-practice
4	Mar/1	07-03-24	3:30 to 5:30	Introduction to descriptive statistics Absolute, relative frequencies with R	2		Lecture, Demonstration, Self-practice
5	Mar/2	14-03-24 15-03-24 16-03-24	3:30 to 5:30	cumulative frequencies with R Arithmetic Mean with R	4	2	Lecture, Demonstration, Self-practice
6	Mar/3	21-03-24 22-03-24 23-03-24	3:30 to 5:30	Median, Mode, GM & HM with R	4	2	Lecture, Demonstration, Self-practice and Assignment2
7	Mar/4	28-03-24 30-03-24	3:30 to 5:30	Range, QD and Absolute Deviation with R	3	1	Lecture, Demonstration, Self-practice
8	Apr/1	04-04-24 06-04-24	3:30 to 5:30	SD and Variance with R Correlation and Application with R	3	1	Lecture, Demonstration, Self-practice & Assignment3
9	Apr/2	12-04-24	3:30 to 5:30	Graphs & Plots- Bar and Pie	2		Lecture, Demonstration, Self-practice

EG:  
P  
9

10	Apr/3	18-04-24 19-04-24 20-04-24	3:30 to 5:30	Box plots and Scatter plots Kernal density, stem leaf	4	2	Lecture, Demonstration, Self-practice & Assignment4
11	May/1	04-05-24	2 to 4	Final Exam		2	Exam
				Total Hrs	30	12	42

**Course Instructors:**

1. K. Ashok
2. P. Ramesh

  
Lecturer In-Charge

# SRR & CVR Government Degree College (A):Vijayawada

## Department of Statistics

### Certificate Course : Basic Statistics with R

Duration : 40 Hours

Period of the course: Even Sem

Intake: 30

#### ABOUT THE COURSE:

Any data analysis is incomplete without statistics. After getting the data, any statistical analysis starts with descriptive statistics which aims to extract the information hidden inside the data. The tools of descriptive statistics are based on mathematical and statistical functions which are to be evaluated using the software. The statistical software are paid as well as free. Most of the statistical software are paid software. Popular free statistical software is R.

**Objective of the Course:** What are the basic tools of descriptive statistics and how to use the R software for descriptive statistical analysis is the objective of the course to be taught.

**Learning Outcomes:** After completion of the course, the learners are able apply various tools of 'R' software to analyze descriptive statistics and to derive insights of the data.

#### INTENDED AUDIENCE:

UG students of Science and Humanities with basic mathematical and statistical background.

#### COURSE LAYOUT:

- Unit 1:** Calculations with R Software: ( 8 Hrs)  
Introduction, Basics, Data Vectors, Matrices, Handling missing data
- Unit 2:** Introduction to Descriptive Statistics, frequency distribution, (10 Hrs)  
Central Tendency of Data:  
Absolute frequencies, Relative frequencies, Cumulative frequency distribution, Mean, Median, Mode, GM and HM
- Unit 3:** Variation in Data and Bi-variate data and correlation analysis : (12 Hrs)  
Range, Quartile deviation, Absolute Deviation, Standard deviation and variance  
Correlation analysis of bi-variate data
- Unit 4:** Graphics and Plots: (10 Hrs)  
Bar diagrams, Pie diagrams, kernel density, stem-leaf plots, Box plots, scatter plots.

#### References:

1. Software for Data Analysis: Programming with R (Statistics and Computing) by John M. Chambers (Spinger)
2. R reference card (PDF) by Tom Short (more can be found under Short Documents and Reference Cards here)
3. Quick-R: quick online reference for data input, basic statistics and plots

S. No	Name of the Student	Year	Class
1	A. Devi Sri	1 <sup>st</sup>	B. Sc (Data Science)
2	A. Naveena	1 <sup>st</sup>	B. Sc (Data Science)
3	D. Leela Ram Charan	1 <sup>st</sup>	B. Sc (Data Science)
4	D. Durga Rao	1 <sup>st</sup>	B. Sc (Data Science)
5	G. Sai Kumar	1 <sup>st</sup>	B. Sc (Data Science)
6	K. Chandu	1 <sup>st</sup>	B. Sc (Data Science)
7	K. Ramu	1 <sup>st</sup>	B. Sc (Data Science)
8	K. Siva Lahari	1 <sup>st</sup>	B. Sc (Data Science)
9	M. Veeranjanyulu	1 <sup>st</sup>	B. Sc (Data Science)
10	P. Pooja Sri	1 <sup>st</sup>	B. Sc (Data Science)
11	S. Revanth	1 <sup>st</sup>	B. Sc (Data Science)
12	S. Rohith	1 <sup>st</sup>	B. Sc (Data Science)
13	T. Jogi Babu	1 <sup>st</sup>	B. Sc (Data Science)
14	P. Siva Nagini	2 <sup>nd</sup>	B. Sc (DSCS)
15	B. Arunanjani	2 <sup>nd</sup>	B. Sc (DSCS)
16	I. Kumar Raja	2 <sup>nd</sup>	B. Sc (DSCS)
17	P. Deepti	2 <sup>nd</sup>	B. Sc (DSCS)
18	V. Sai Tejaswi	2 <sup>nd</sup>	B. Sc (DSCS)
19	V. Varshini	2 <sup>nd</sup>	BBA (DM)
20	M. Trivikram	2 <sup>nd</sup>	B. Sc (MSCS)