R. J. COLLEGE of Arts, Science & Commerce (AUTONOMOUS)

(Hindi Vidya Prachar Samiti's RAMNIRANJAN JHUNJHUNWALA COLLEGE of Arts, Science & Commerce)

Opposite Ghatkopar Railway Station, Ghatkopar (West), Mumbai 400086, Maharashtra, INDIA.

Website: www.rjcollege.edu.in Email: rjcollege@rjcollege.edu.in Tel No: +91 22 25151763 Fax No: +91 22 25150957

College is recognized under Section 2(f) & 12(B) of the UGC Act, 1956

Affiliated to UNIVERSITY OF MUMBAI || NAAC Re-Accredited 'A' Grade (CGPA: 3.50)

26th September 2019

NOTICE

DEGREE COLLEGE

The department of Statistics is organising a value-added course on R Software from 1st October 2019 onwards. The mode of evaluation will be continuous and attendance of students will be compulsory. Students will be awarded with certificate and two credits on successful completion of the course.

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Principal

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Department of Statistics

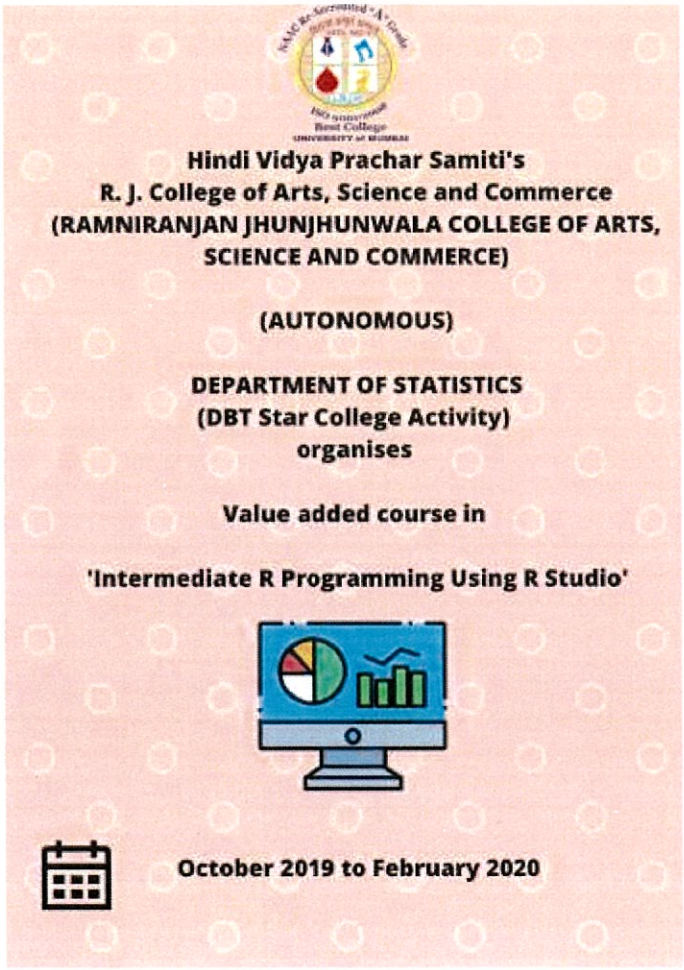
Value Added Course in

Intermediate R programming Using R Studio

Organized on

October 2019- February 2020

(DBT Star College Activity)



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Usha

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BROCHURE

Hindi Vidya Prachar Samiti's

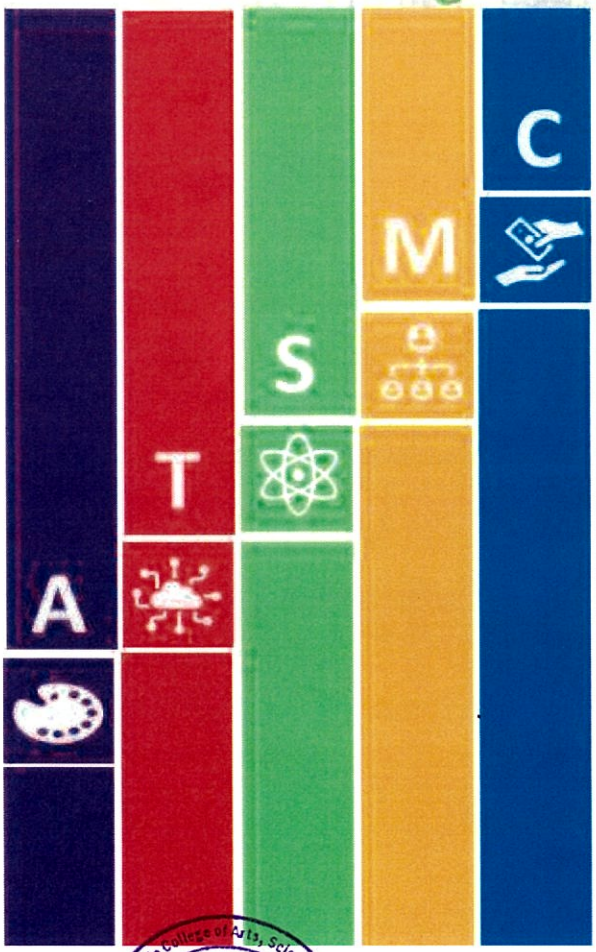
RAMNIRANJAN JHUNJHUNWALA COLLEGE (AUTONOMOUS)

(Also known as R. J. College of Arts, Science & Commerce as per UGC Notification)

Affiliated to UNIVERSITY OF MUMBAI || Recognized by UGC under 2f & 12B

NAAC Accredited 'A GRADE' with CGPA 3.50

Knowledge is all Ambrosia



CERTIFICATE COURSE IN

DATA ANALYTICS USING R SOFTWARE

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ABOUT US

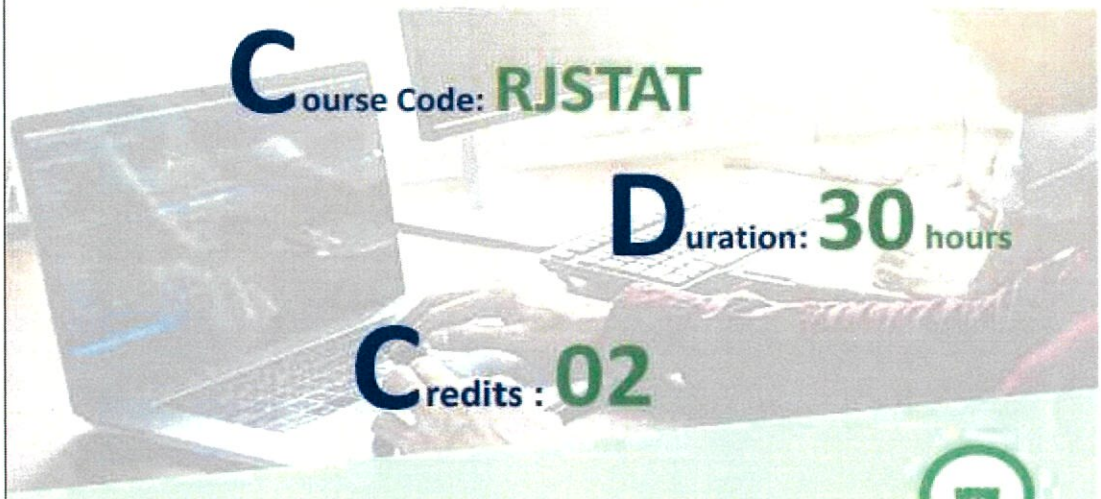
Hindi Vidya Prachar Samiti was incepted on the auspicious day of Shri Krishna Janmashtami, 15th August 1938. A brain child of a visionary Late Shri Nandkishore Singh Jairamji, samiti was established with the objectives of catering to the educational needs of the Hindi speaking community. Ramniranjan Jhunjhunwala College came into existence in 1963, enabling a larger section of the society to take advantage of the facilities provided for higher education.

From 1999-2000 the College has added a number of self-financing courses like B.M.S., B.B.I., B.Sc. in Computer Science, Information Technology, Biotechnology, M.Sc. in Computer Science, Biotechnology and Information Technology as well as add on courses, which further hone the special skills of the students.

The college has been reaccredited with 'A' Grade by NAAC in 2014 with a CGPA 3.50 and received the Best College Award (2007-2008) of the University of Mumbai. The College has been bestowed with IMC "Ramkrishna Bajaj Performance Excellence Trophy", 2010.

The Former Principal of the college was awarded "Best Teacher" by Government of Maharashtra in 2011.

Government of Maharashtra conferred the college with "JAAGAR JAANIVANCHA" (First in Mumbai Suburban- in 2013 and Second in Mumbai Suburban- in 2014) for safety of girls.



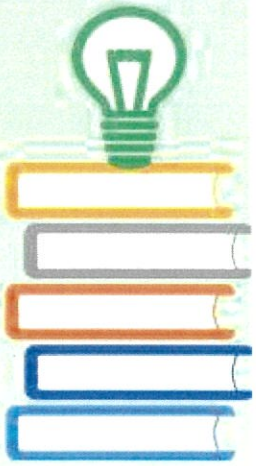
Course Code: RJSTAT

Duration: 30 hours

Credits : 02

ABOUT COURSE

- This Course will be introduced to enhance the students' skills of Using R software.
- From this course students will come to know how to analyse statistical data using R software and Excel.



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CERTIFICATE COURSE IN DATA ANALYTICS USING R SOFTWARE

COURSE OBJECTIVE

Unit	Objectives	Suggested Activities	Duration	Mode of Assessment
I	Understanding the R work-space and how to write R commands to solve statistical problems.	Lectures Assignment Library work	2 Hours 3 Hours 2 Hours	Quiz (20 Minutes)
II	Writing codes to find different types of central tendency and dispersions in R software and Excel.	Lectures Assignment Library work	2 Hours 3 Hours 2 Hours	Quiz (20 Minutes)
III	Visualize the data and analyze it using correlation and regression in R software	Lectures Assignment Library work	2 Hours 3 Hours 2 Hours	Quiz (20 Minutes)
IV	Understanding how to write codes for different probability distributions in R.	Lectures Assignment Library work	2 Hours 3 Hours 2 Hours	Quiz (20 Minutes)

COURSE CONTENT

Unit I	R Fundamentals: Introduction to the interface (R/ R Studio): Basic Functionalities: Type of vectors, Data Exploration using R, Reading Data into R, Subsetting, Matrices & Data Frames. Diagrammatic Representation - Bar Diagrams – Subdivided, Multiple, Percentage, Pie Charts, Stem & Leaf, Box-plot. Frequency distributions- preparation of freq. distribution table, graphical representation, histogram (grouped ungrouped), polygon, ogives, empirical distribution.
Unit II	Using R software :- Measures of central tendency and dispersion – Mean(Arithmetic Mean, Geometric Mean, Harmonic Mean), Median, Mode, Quantiles (for grouped and ungrouped data), Mean deviation, Quartile deviation, Standard deviation, Skewness, Kurtosis. Simple Random Sampling (WR and WOR), Estimation of sample size, Stratified and Systematic Sampling.
Unit III	Using R software :- Scatter Diagram, Product Moment correlation and its properties. Spearman's Rank Correlation' Concept of linear regression. Fitting a straight line by method of least square. Relation between regression coefficients and correlation coefficient. Concept and use of coefficient of determination R^2.
Unit IV	Using R software :- Some standard discrete distributions: Discrete Uniform, Binomial , Poisson and Hypergeometric distribution. Recurrence relation for probabilities of Binomial and Poisson distribution. Some standard continuous distribution: Uniform, Exponential, memory less property of exponential distribution. Normal and Standard Normal distribution. Properties of Normal and SNV.

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CERTIFICATE COURSE IN DATA ANALYTICS USING R SOFTWARE

EVALUATION

Evaluation Criteria	Maximum Marks	Minimum Marks to be Scored
Quiz	10	04
Assignment	20	08
Examination - Problem Solving	20	08
Total	50	20

MEDIUM OF INSTRUCTION English

50 MARKS PASSING 20

WHO SHOULD DO IT?

Any UG and or PG student

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Report

The Department of Statistics conducted a value-added course titled "Intermediate R Programming Using R Studio" from October 2019 to February 2020. The course was conducted by Balachandra Devadiga, Vivekananth Nadar, Rajashimman Achari, Anil Kumar and Mr. Atul Patil. It spanned a total duration of 30 hours and aimed to enhance participants' skills in R programming. The course incorporated various assessment methods such as quizzes, assignments, and mini projects to evaluate the students' understanding and progress. These evaluations served as an opportunity for participants to apply their knowledge and demonstrate their proficiency in R programming. A total of 23 SYBSC Statistics students benefited from this course. Overall, the course provided a comprehensive and practical learning experience for the students, enabling them to enhance their proficiency in R programming and further their understanding of statistical analysis.

No. of registered students = 30

No. of participants benefited = 23 SYBSC(Statistics)

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List of Attendance

Class	Name
SYBSC	Shivani Singh
SYBSC	Ashishkumar Arjun Rana
SYBSC	Bikesh Jaisawal
SYBSC	Sayali Pandurang Kokitkar
SYBSC	Vishwakarma sudha sunil
SYBSC	neetu yadav
SYBSC	Singh Vishal Rajan
SYBSC	Manoj Nandlal Singh
SYBSC	KOMAL RAMESH PAL
SYBSC	Prajapati Akash Shivshankar
SYBSC	Rashmita gauda
SYBSC	Shubham suratran
SYBSC	Dikshita Kandari
SYBSC	Jyoti Omkarnath Pandey
SYBSC	Kritika Manish Mane
SYBSC	Mishra Pinka Mahendra
SYBSC	Shubham mukeshchandra upadhyay
SYBSC	Rajesh Sahani
SYBSC	Shaikh Kaneez Fatima
SYBSC	Aman Ratan Soni
SYBSC	Nikhil Vishwakarma
SYBSC	Ritesh Ramashray Pal
SYBSC	Amit Nishad

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(AUTONOMOUS)

DEPARTMENT OF STATISTICS

In Collaboration with

Numstats

AWARD THE CERTIFICATE TO

Omprakash Yadav

FOR HAVING SUCCESSFULLY COMPLETED THE REQUIREMENT OF THE CERTIFICATE PROGRAM IN INTERMEDIATE R PROGRAMMING USING R STUDIO

Grade O

Numstats | Head of Department | Principal

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