



Sant Dnyaneshwar Shishan Sanstha's

Hon. Shri. Annasaheb Dange Arts, Commerce & Science College, Hatkanangale

Department of Computer Science

CERTIFICATE COURSE IN R PROGRAMMING

Academic Year : 2021-2022

Course duration : 30 days

Time : 9.00 am to 10.00pm

01/03/2022 to 10/04/2022

- 1] Student's Notice.
- 2] Brochure Syllabus.
- 3] List of Participating Students.
- 4] Schedule of Contact sessions.
- 5] Participating Student Attendance Sheet.
- 6] Activity Report.
- 7] Question paper
- 8] Result Sheet
- 9] Certificate



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Student's Notice

Date :- 17/02/2022

Day:- Thursday

Department of Computer Science Organize 1 month short Term Certified Course (Role of Angular in Web Development) for B.Sc. Students. Duration of this course was 01/03/2022 to 10/04/2022. Maximum 100 Participants will be apply for this course after course completed we organize internal and external Tests of 50 Marks. The course will be free of cost and the students will be given a certificate after passing the exam. Students who want to register their names should submit their names to Mr. Swapneel Rawal Sir before 27/02/2022.

Coordinator

Pravin S. Gurav

Department of B.Sc.



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CERTIFICATE COURSE IN (R PROGRAMMING)

Academic Year : 2021-2022



Course Coordinator

Pravin S. Gurav
[Department of Comp. Sci.]
Hon.Shri.Annasaheb Dange
Art's,Commerce and Science
College, Hatkanangale
Mobile No : 9850122568

Principal

Dr. Yojana Jugale
Hon.Shri.Annasaheb Dange
Art's,Commerce and Science
College, Hatkanangale
Phone No : 0230-2483521

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(1) Introduction to R Programming:-

Every year different activities are conducted by B.Sc. department for students. One of them is this certificate course. R programming is one of the new technologies coming in the IT industry every day. Today, there is a huge demand for R programming developer in the IT sector, we have started this short term course for the student, Genecroon students should be familiar with it and when the student goes for a job, this certificate can be useful for him.

(2) About Syllabus:-

R is an open-source programming language that is widely used as a statistical software and data analysis tool. R generally comes with the Command-line interface. R is available across widely used platforms like Windows, Linux, and macOS. Also, the R programming language is the latest cutting-edge tool.

1. Understand the fundamental syntax of R through practice exercises.
2. Describe the control statements and functions in R.
3. Analyze a data set in R and represent findings using the appropriate R packages.
4. Use data visualization tools.

(3) Eligibility of Course :-

All students of B.Sc part I,II and III can apply for this course

Accessibility : Maximum [100] students .

(3) Course Duration :-

The duration of this course will be 30 hours out of which 20 hours will be lectures and 10 hours will be practicals.

(5) Course Medium :-

The teaching method for this course will be both English and Marathi but the exam will be in English only. There will be 20 multiple choice questions and 40 marks and 10 marks will be practical work.

(6) Syllabus Structure :-

Unit – I Introduction to R:

07 Hrs

- Installation of R & RStudio, Features of R
- Variables, Constants, Operators in R, Datatypes and R Objects
- Accepting Input, Important Built-in functions, Creating Vectors,
- Accessing elements of a Vector, Operations on Vectors, Vector Arithmetic.

Unit –II Control statements and functions:

07 Hrs

- Control statements: if...else, if else() function, switch() function, repeat loop, while loop, for loop, break statement, next statement
- Formal and Actual arguments, Named arguments, Global and local variables
- Argument and lazy evaluation of functions, Recursive functions.
- Creating strings, paste(), Formatting numbers and string using format(), String manipulation

Unit – III Matrices, Arrays and Data frames:

08 Hrs

- Creating matrices, Accessing elements of a Matrix, Operations on Matrices, Matrix transpose,
- Creating arrays, Accessing array elements, Calculations across array elements
- Introduction to data frames and basic operations on data frames.

Unit- IV Introduction to Data Visualization:

08 Hrs

- Data visualization basics, Installing and loading packages, importing data

- Working with missing data, Extracting a subset of a data frame
- Scatter Plot, Box Plot, Bar plot, Plotting categorical data, Stacked bar plot
- Histogram, plot() function and line plot, pie chart / 3D pie chart.

● **References:-**

- 1- 1. R Programming for Data Science Peng, R.D. (2020) Bookdown: New York.
2. An Introduction to Statistical Learning by Gareth James (2017) Publisher: Springer
3. R for Data Science by Garrett Grolemund and Hadley Wickham, Publisher: O'Reilly Media, Inc. 2017.
4. R Fundamentals by Sosulski, K. (2018) Bookdown: New York.
5. Discovering Statistics Using R by Andy P. Field, SAGE Publications Limited.

(7) Study Methods :-

1. Guided by expert teachers
2. Internal Evaluation
3. Practicals in Computer Lab

(8) Evaluation Process :-

- Following are the evaluation Method
- 8.1- Internal Evaluation – 10 Marks
 - 8.2- Final Exam – 40 Marks

8.1-Internal Evaluation :-

For this student have to choose one project and complete it.

8.2- Final Exam :-

For passing students have to get 40 % marks in final exam.

(9) Credits :-

2 Credits For this course

(10) Contacts:-

Coordinator

Mr. Pravin S. Gurav

Department of Computer Science

Hon. Shri. ADACS college, Hatkanangale

Mobile: 9850122568



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CERTIFICATE COURSE IN (ROLE OF ANGULAR IN WEB DEVELOPMENT)

Academic Year : 2021-2022

Register Student List

Sr No	Student Name	Class
1	BAGWAN SAMIR MEHABOOB	B.Sc.- I
2	BELEKAR TEJASVI ANIL	B.Sc.- I
3	BHAKARE DIGVIJAY ANANDA	B.Sc.- I
4	CHAVAN SANKET SACHIN	B.Sc.- I
5	DEVKULE ADITYA DEEPAK	B.Sc.- I
6	GAIKWAD SUYASH UDAYBHAN	B.Sc.- I
7	GHORPADE AKSHAY SANJAY	B.Sc.- I
8	INAMDAR SAMAD SANAULLA	B.Sc.- I
9	JADHAV VAISHNAVI VISHNU	B.Sc.- I
10	JAMBHALE ATHARVA TUKARAM	B.Sc.- I
11	JAMBHALE RUSHIKESH RAJKUMAR	B.Sc.- I
12	KAMATE PRASAD EKNATH	B.Sc.- I
13	KAMBLE SACHIN SANJAY	B.Sc.- I
14	KOLI ADITYRAJ PANDURANG	B.Sc.- I

15	KOLI GANESH DILIP	B.Sc.- I
16	LOHAR AMRUTA DHANAJI	B.Sc.- I
17	MAYANNA VINOD DILIP	B.Sc.- I
18	MULLA SUBHAN RASHEED	B.Sc.- I
19	NARUTE AMRUTA ASHOK	B.Sc.- I
20	NINGURE ANIKET TANAJI	B.Sc.- I
21	PATIL ABHISHEK BHARAT	B.Sc.- I
22	PATIL CHETAN SHIVKUMAR	B.Sc.- I
23	SAPKAL RENUKA BALU	B.Sc.- I
24	SARAVARI ANNAPURNA CHANDRAKANT	B.Sc.- I
25	DHUMALE SNEHA SUNIL	B.Sc.- I
26	BAGWAN MAHAMADSHAFI ALAMGIR	B.Sc.- I
27	CHAVAN ISHA VINOD	B.Sc.- I
28	DONGARE PRATIK RAJENDRA	B.Sc.- I
29	GAIKWAD ADITI AJIT	B.Sc.- I
30	JADHAV JYOTI MILIND	B.Sc.- I
31	KAMBOGI SAMIR MAOHAMMAD	B.Sc.- I
32	KASHID PRAVIN BALIRAM	B.Sc.- I
33	KAZI NOHID NADIM	B.Sc.- I
34	KOLI AJINKAY PRAKASH	B.Sc.- I
35	METHE PRANALI PRAKASH	B.Sc.- I
36	PATIL YASHRAJ NETAJI	B.Sc.- I

37	POTDAR HARSHADA CHANDRAKANT	B.Sc.- I
38	SHELAR ROHIT UMESH	B.Sc.- I
39	SHINDE ABHISHEKH KASHINATH	B.Sc.- I
40	SHINDE GURURAJ PANDURANG	B.Sc.- I
41	SINGH SHIVA JIVAN	B.Sc.- I
42	SUTAR BHAGYASHRI DADASO	B.Sc.- I
43	WAGHMODE PRITAM PARSHRAM	B.Sc.- I
44	KHAN SANIYA IJHAR	
45	KUMBHAR INDRAYANI SANTOSH	
46	CHOUGULE TEJAS KUMAR	
47	SATPUTE SAKSHI VIJAY	
48	ABRANGE AKASH BAJIRAO	
49	BAMANEKAR SONAL SURASH	
50	MUJAWAR SANIYA SHAWAL	
51	POTDAR SANKET SUDARSHAN	
52	KOLI KARAN SUNIL	
53	KAMBLE BHAKTI RAJU	
54	KAMBLE MEGHA BAPU	
55	THOMBARE SHRAVANI PANDURANG	
56	ADAVKAR RUSHIKESH SANJAY	
57	ALASE SAMMED SANJAYKUMAR	
58	BHOSKAR POOJA SUNIL	

59	BODAKE SHIVAM BABASAHEB	
60	BUSAKAR PRAVIN SAMBHAJI	
61	CHANVIRE SHWETA PRABHAKAR	
62	DORLE ASHWINI MOHAN	
63	GAIKWAD ANKET SANJEEV	
64	GAIKWAD URMILA ANNASO	
65	GARADE VINAYAK PRAKASH	
66	GHATAGE RANJIT RAVSAHEB	
67	GHATAGE SHRADDHA GORAKHNATH	
68	GHOLAP SUMEDH KISAN	
69	GORE SAMRUDDHI RAJARAM	
70	GURAV SHASHI SAGAR	
71	HAJARI SALIM MANSOOR	
72	HAWALDAR MUSKAN SATTAR	
73	JADHAV SANDEEP SANJAY	
74	JAMBHALE MANDAR MARUTI	
75	KAMBLE ADHITYRAJ SANTOSH	
76	KAMBLE SHREYA SHRIKANT	
77	KHILARE MAHADEV ANNA	
78	KOLI MAYURI MAHESH	
79	KOLI PRAJWAL BASAVRAJ	
80	KOLI SOHAM ANIL	

81	KOLI SURAJ VINOD	
82	LAVATE BIRENDRA MAHAVIR	
83	LAVATE SAKSHI MAHAVIR	
84	LOHAR SNEHAL NIVAS	
85	LOHAR SWAPNIL SUNIL	
86	MUJAWAR ALFIYA SAMEER	
87	MUJAWAR MAHEK JAMEER	
88	MUJAWAR RAHINA SAJID	
89	MUJAWAR TANJILA ZAMIR	
90	MULLA RABIYA FAJALEKARIM	
91	PATIL INDRAJIT ANIL	
92	PATIL PRATIK ANANDA	
93	PATIL SATEJ VIKAS	
94	PATIL SUDARCHAN SUNIL	
95	PATIL SURAJ RAMCHANDRA	
96	PUJARI KAVITA YASHWANT	
97	SHARMA ASHTA AMOL	
98	SHINGADE KOMAL RAKESH	
99	SHINGARE ASHWINI KRUSHANAT	
100	SHINGE SONALI BABANRAO	



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**CERTIFICATE COURSE IN (ROLE OF ANGULAR IN WEB
DEVELOPMENT)**

Academic Year : 2021-2022

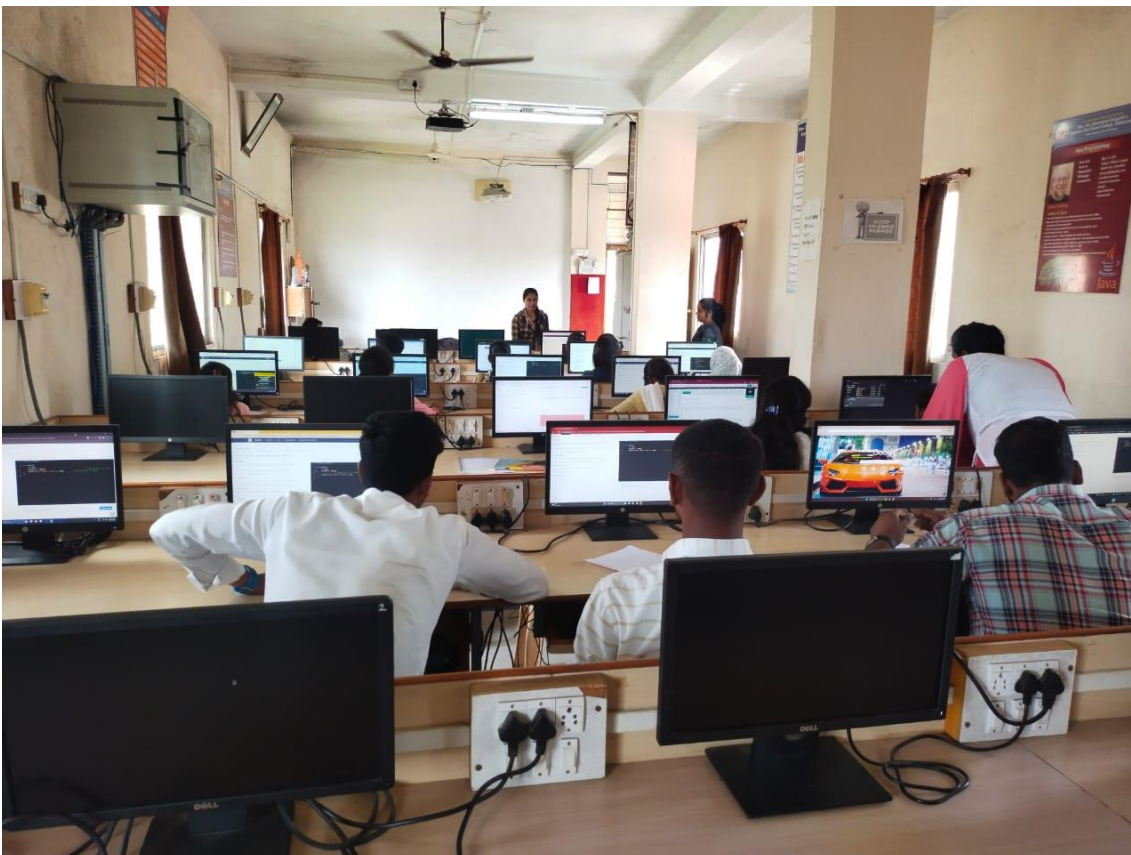
Time Table

Faculty Name : Miss. Neha Abdan

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9.00 to 10.00	9.00 to 10.00	9.00 to 10.00	9.00 to 10.00	9.00 to 10.00	9.00 to 10.00

Participating Student List

Photos :



Sample Certificate: