

From
Dr. Dipankar Sarma
HoD, Department of Mathematics

To
The Coordinator IQAC
Jawaharlal Nehru College, Boko

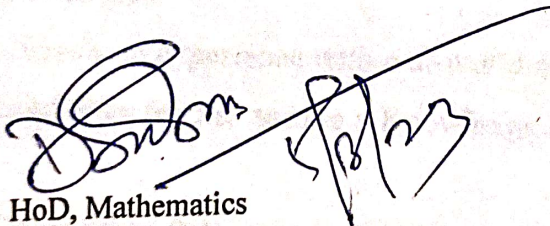
Date : 05.03.2023

Subject : Opening Add-On Course

Sir

With reference to the subject cited above, I have the honour to inform you that the department of Mathematics, of J N College has started an Add-On course 'Data Science Foundation' from the session 2022-23 for the UG students. The detail syllabus and name of applicants are attached here.

With regards


HoD, Mathematics

Notice for Admission in to Add On Course on 'Foundation of Data Science'

Date : 24.02.2023

It is for information to all concerned that the Department of Mathematics of Jawaharlal Nehru College, Boko is going to start the Add On Course 'FOUNDATION OF DATA SCIENCE' for the B.A. / B.Sc. 4th Semester students. Interested students from Mathematics/ Physics / Chemistry / Botany / Zoology / Economics departments can apply for the course. The detail of the Course and Admission process, Admission Date are given below.

Commencement of the course : The course will be started from 1st week of March, 2023.

Duration : 64 Hours (Including Theory & Practical)

Classes will be held in blended mode (Offline and Online)

Objectives of the course : The objective of this course is to familiarize students with the basics of data science, its applications and develop Python/R programming skills.

Learning Outcomes: At the end of this course, the students will be able to:

- Understand the needs of data science
- Familiarize with the programming tools required for data science
- Collect, explore, clean, and manipulate data.
- Compute the statistics using programming tools
- Implement data science models, such as k-nearest Neighbors, linear and logistic regression, neural networks
- Get hands-on experience with real-world data analysis

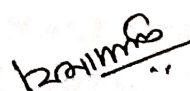
Pre-requisites for the course : Knowledge of High school level mathematics and statistics.

Admission Date & Venue : 03-03-2023 at the Department of Mathematics.

Admission Process: Admission Form will be available in the department of Mathematics from 27th February, 2023 onwards. The duly filled admission form will have to be submitted to the HoD, department of Mathematics on or before 2.00 PM of 1st March, 2023 with necessary documents. The list of selected students will be displayed in the college notice board and in college portal www.jncollegeonline.co.in on 2nd March, 2023.

Admission Fee : Rs. 1000.00

For more information Contact : 94353 40747 / 98646 70980


(Dr. Tapan Dutta)

Principal, J. N. College

To,
The Principal,
Jawaharlal Nehru College, Boko

Subject: Request for opening a new add on course

Sir,

With reference to the subject cited above, I have the honour to inform you that the Department of Mathematics is willing to open an add on course named "Data Science Foundation" for the UG 4th semester students from this academic session. This course will be started from February, 2023 and it will be useful for students with subject Mathematics, Botany, Zoology, Economics, Physics & Chemistry.

The proposed syllabus for the course is attached herewith.

Therefore sir, I request you kindly to give the permission for opening this course from this month.

Yours faithfully



(Dr. Dipankar Sarma)
Associate Professor,
Dept. of Mathematics
J. N. College, Boko

Syllabus - Data Science Foundation

Duration: 64 Hours

Pre-requisites:

- High school Mathematics and Statistics

Objectives:

The objective of this course is to familiarize students with the basics of data science, its applications and develop Python/R programming skills.

Learning Outcomes:

At the end of this course, the students will be able to:

- Understand the needs of data science
- Familiarize with the programming tools required for data science
- Collect, explore, clean, and manipulate data.
- Compute the statistics using programming tools
- Implement data science models, such as k-nearest Neighbors, linear and logistic regression
- Get hands-on experience with real-world data analysis

Detailed Syllabus:

1. Introduction to Data Science

- What is data?
- What is data science?
- Some real-world data science applications
- Structuring a data science project

2. Programming Tools for Data Science - Python & R

- Environment Set-up and IDE installation
- Basics of Python
- Toolkits using Python: Matplotlib, NumPy, Pandas
- Basics of R - Data types & structures, Data import & export
- Understanding of basic R packages
- Data visualization with R

3. Data preprocessing:

- Data cleaning
- Derive insights of Data with python pandas

4. Mathematical Foundations with Python/R
 - Important statistical concepts used in data science
 - Difference between population and sample
 - Types of variables
 - Measures of central tendency
 - Measures of variability
 - Coefficient of variance
 - Skewness and Kurtosis
 - Normal distribution
 - Basics of probability
 - Important probability concepts for data science
 - Statistical Data Analysis using R/Python
5. Basic machine learning
 - What is machine learning
 - Use cases in real-world scenarios
 - Supervised and unsupervised
 - Linear regression
 - Logistic regression
 - k-nearest Neighbors
6. Practical sessions and assignments
7. Final project

Prepared by:

1. Dr Sishir Kalita, Data Scientist, Armsoftech.air, Chennai
2. Dr Kuladip Sarma, Assistant Professor, Gauhati University
3. Parismita Gogoi, Assistant Professor, DUIET, Dibrugarh University
4. Department of Mathematics, JN College, Boko

Department of Mathematics
Jawaharlal Nehru College, Boko

Add-On Course _ Data Science Foundation I

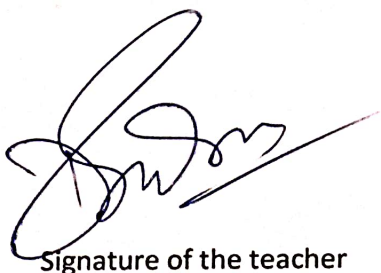
Attendance Sheet

List of Participants.
Session - 2023-24

Date:

SL NO	Roll No	Name	Contact	
1	JNC/2021/UG-S/3	Krishanka Kalita		
2	JNC/2021/UG-S/4	Nikita Chetry		
3	JNC/2021/UG-S/5	Devid Tamuly		
4	JNC/2021/UG-S/7	Himangshu Kalita		
5	JNC/2021/UG-S/9	Kaberi Das		
6	JNC/2021/UG-S/10	Deepu kumar Rabha		
7	JNC/2021/UG-S/14	Najir Ali		
8	JNC/2021/UG-S/16	Pradip Sarma		
9	JNC/2021/UG-S/17	Inzamamul Hoque		
10	JNC/2021/UG-S/19	Pranami Kalita		
11	JNC/2021/UG-S/20	Rahul Malo		
12	JNC/2021/UG-S/22	Uddhab Ray		
13	JNC/2021/UG-S/24	Nekib Ahmed		
14	JNC/2021/UG-S/27	Kaushik Patowary		
15	JNC/2021/UG-S/30	Ashish Boro		
16	JNC/2021/UG-S/31	Priyanka Rabha		
17	JNC/2021/UG-S/33	Sahajalal Hoque		
18	JNC/2021/UG-S/34	Mrinmoy Saloi		
19	JNC/2021/UG-S/36	Jupitara Kalita		
20	JNC/2021/UG-S/38	Dibakar Rabha		
21	JNC/2021/UG-S/39	Nikita Kalita		
22	JNC/2021/UG-S/44	Nayanmani Rangder		
23	JNC/2021/UG-S/50	Navajyoti Das		
24	JNC/2021/UG-S/56	Lipika Barman		
25	JNC/2021/UG-S/58	Himashri Das		
26	JNC/2021/UG-S/64	Sabbir Hussain		

	Roll No	Name	Contact	
27	JNC/2021/UG-S/68	Ashraful Hussain		
28	JNC/2021/UG-S/70	Bhargab Kalita		
29	JNC/2021/UG-S/74	Shoriful Uddin		
30	JNC/2021/UG-S/75	Koushik Kalita		
31	JNC/2021/UG-S/82	Bhaimon Rabha		
32	JNC/2021/UG-S/83	Dibakar Kalita		
33	JNC/2021/UG-S/87	Samiksha Rabha		
34	JNC/2021/UG-S/89	Mintu Rabha		
35	JNC/2021/UG-S/90	Kalparanjan Tulsary		
36	JNC/2021/UG-S/94	Nipa Rabha		
37	JNC/2021/UG-S/95	Ani Rabha		
38	JNC/2021/UG-S/101	Himangshu Kalita		
39	JNC/2021/UG-S/116	Najmin Sultana		
40	JNC/2021/UG-S/118	Moidul Islam		
41	JNC/2021/UG-S/121	Jayanta Biswas		
42	JNC/2021/UG-S/123	Bitupan Rabha		
43	JNC/2021/UG-S/124	Sanidul Hussain		
44	JNC/2021/UG-S/126	Rahul Das		
45	JNC/2021/UG-S/138	Afjal Ali		
46	JNC/2021/UG-S/141	Ripan Medhi		
47	JNC/2021/UG-S/149	Manash Talukdar		
48	JNC/2021/UG-S/152	Pampi Rabha		
49	JNC/2021/UG-S/157	Hiramon Das		
50	JNC/2021/UG-S/159	Parinita Choudhury		



Signature of the teacher