



VIVEKANANDA COLLEGE

(GOVT. SPONSORED) (NAAC ACCREDITED GRADE 'A')

DEPARTMENT OF STATISTICS

LIST OF ADD-ON COURSES

1	MONTE CARLO TECHNIQUE
2	DATA ANALYSIS USING R
3	ADVANCE TIME SERIES ANALYSIS USING EXCEL & MINITAB
4	DATA ANALYSIS USING EXCEL & MINITAB

IQAC recommendation

IQAC, Vivekananda College, Thakurpukur, met on 04 May 2018, to envisage, formulate, and design Add-On Courses, beyond the prescribed Curriculum.

A. It was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses for 2018-19 Academic calendar, as per UGC guidelines.

B. It was decided that the Departments would be free to choose the Courses based on their (subject) relevance, practicality, and feasibility.

C. It was decided that the Departments would have a Course Coordinator, who would design the Course and Course material in consultation with all teachers of the Department.

D. It was decided that each Department would design its format.

E. It was decided that the Departments would be encouraged to use and utilize their resources while formulating the Add-On Courses, rather than relying on Outsourcing.

F. IQAC would send its recommendations to the Principal/TIC for perusal and implementation.


24/5/18
Coordinator
IQAC
Vivekananda College
Kolkata-700 033



VIVEKANANDA COLLEGE

(GOVT. SPONSORED) (NAAC ACCREDITED GRADE 'A')

Ref. No. _____

Date 10/05/18

Notice

It is hereby notified that Vivekananda College, Thakurpukur, will offer Add-On Course, to All Honours students for the Academic year 2018-19.

Each Department will offer an Add-On Course as per UGC guidelines. Each Course will be structured & overseen by a Course Coordinator, selected from the respective Department. Departmental Heads are requested to take up the matter on an urgent basis.

H. K. Das
10/05/18

Principal
Vivekananda College
Thakurpukur, Kol-63

Notice

Date: 10/05/18

A meeting will be held on 11/05/18 (Friday) at 1 p.m. on the following agenda:

- i) Academic plan for 'Add on Course' on "MONTE CARLO
TECHNIQUE FOR SIMULATING"
- ii) Miscellaneous

Nilkanta Mukherjee
10/05/2018

H.O.D
(Department of Statistics)

VIVEKANANDA COLLEGE, THAKURPUKUR

DEPARTMENT OF STATISTICS

Resolution of the Departmental Meeting held on 11/05/2018

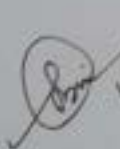
A. Teachers present in the Meeting:

- i) Prof. Nilkanta Mukherjee
- ii) Prof. Sutapa Biswas
- iii) Prof. Debopratim Dhara

B. Minutes of the Meeting:

- I. In the departmental meeting, all the teachers of our department unanimously decided that we will offer our Hons students the ADD-ON course on "MONTE CARLO TECHNIQUE FOR SIMULATING".
- II. It was also decided in the meeting that Prof. Nilkanta Mukherjee of Dept. of Statistics would be the Course Coordinator for the ADD-ON Course.
- III. The Course structure of the ADD-ON Course submitted by Prof. Nilkanta Mukherjee was accepted by all the teachers of the Department.
- IV. Certificates would be given to each student at the successful completion of the course

D. Dhara
11/5/18

 11/5/18

Nilkanta Mukherjee
11/05/2018

HOD
[Dept. Of Statistics]

VIVEKANANDA COLLEGE THAKURPUKUR

DEPARTMENT OF STATISTICS

Syllabus of value-added course

on

"MONTE CARLO TECHNIQUE FOR SIMULATING" (30 hours)

Unit-1: Introduction to Monte Carlo method [5L-5 Hours]

- ❖ Using the computer for the random number generation (treated as a black box)
- ❖ A brief look at some popular approaches (non mathematical justification)
- ❖ Simulating a coin toss, a dice roll and a card shuffle.

Unit-2: Probability Distribution related calculations [5L-5 Hours]

- ❖ CDF inversion method.
- ❖ Simulation from standard distribution e.g. Binomial Distribution, Poisson distribution, Exponential distribution, Double exponential distribution, Gamma distribution etc.
- ❖ Finding probabilities and moments using simulation

Unit-3: Monte Carlo Integration [5L-5 Hours]

- ❖ Basic idea of importance sampling.

Unit-4: Generating sample from different standard distribution [5L-5 Hours]

- ❖ Generating from Binomial and Poisson distribution, and comparing the Histograms to the PMFs.
- ❖ Sampling Gaussian distribution using Box-Muler method.
- ❖ Approximating the expectation of a given function of a random variable using simulation.

Unit-5: Some Practical Applications [10L-10 Hours]

- ❖ Graphical demonstration of the Law of Large Numbers.
- ❖ Approximating the value of 'pi' by simulating dart throwing.
- ❖ Application of all the techniques for real life situation (Case Studies).

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LESSON PLAN OF MONTE CARLO TECHNIQUE FOR SIMULATING

Resource Person: Prof. Nilkanta Mukherjee

Sl no.	Topic	No. of Classes
1	Introduction to Monte Carlo method	2
2	Using the computer for the random number generation (treated as a black box) A brief look at some popular approaches (non mathematical justification) Simulating a coin toss, a dice roll and a card shuffle.	6
3	CDF inversion method. Simulation from standard distribution e.g. Binomial Distribution, Poisson distribution, Exponential distribution, Double exponential distribution, Gamma distribution etc. Finding probabilities and moments using simulation.	5
4	Monte Carlo Integration. Basic idea of importance sampling.	5
5.	Generating from Binomial and Poisson distribution, and comparing the Histograms to the PMFs. Sampling Gaussian distribution using Box-Muler method. Approximating the expectation of a given function of a random variable using simulation.	
6.	Graphical demonstration of the Law of Large Numbers. Approximating the value of 'pi' by simulating dart throwing.	5
7.	Application of all the techniques for real life situation (Case Studies).	7

Examination will be held at the end program

To
The Principal
Vivekananda College
Thakurpukur, Kolkata-63

SUB: Intimation letter for ADD-ON course on 'MONTE CARLO TECHNIQUE FOR SIMULATION'

Respected Sir,

This is to inform you that to consider this letter as an intimation letter with reference to your letter dated 10/05/2018 and IQAC coordinator dated 04/05/2018. A departmental meeting was held on 11/05/2018 with reference to the notice provided by you and IQAC coordinator. In the meeting we have decided to start the classes of the ADD-ON course on **MONTE CARLO TECHNIQUE FOR SIMULATION** for the session 2018-19 from 16/07/2018 for our Hons. students. We have also decided that the classes will be held with 2 hrs. duration [excluding regular class routine] as per the availability of the computer lab.

Please consider this intimation letter, and allow us to start the said course. Thanking you in anticipation.

Yours faithfully,

Nikanta Mukherjee
09/07/2018

HOD
[Department of Statistics]

IQAC recommendation

IQAC, Vivekananda College, Thakurpukur, met on 03 May 2019, to envisage, formulate, and design Add-On Courses, beyond the prescribed Curriculum.

A. It was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses for 2019-20 Academic calendar, as per UGC guidelines.

B. It was decided that the Departments would be free to choose the Courses based on their (subject) relevance, practicality, and feasibility.

C. It was decided that the Departments would have a Course Coordinator, who would design the Course and Course material in consultation with all teachers of the Department.

D. It was decided that each Department would design its format.

E. It was decided that the Departments would be encouraged to use and utilize their resources while formulating the Add-On Courses, rather than relying on Outsourcing.

F. IQAC would send its recommendations to the Principal/TIC for perusal and implementation.


03/5/19
Coordinator
IQAC
Vivekananda College
Ph. No. 700 063



VIVEKANANDA COLLEGE

(GOVT. SPONSORED) (NAAC ACCREDITED GRADE 'A')

Ref. No. _____

Date 08.5.19

Notice

It is hereby notified that Vivekananda College, Thakurpukur, will offer Add-On Courses to All Honours students for the Academic year 2019-20.

Each Department will offer an Add-On Course as per UGC guidelines. Each Course will be structured & overseen by a Course Coordinator, selected from the respective Department. Departmental Heads are requested to take up the matter on an urgent basis.

H. K. Podder
08.5.19

Principal
Vivekananda College
Thakurpukur KOL-63

Notice

Date: 08/05/19

A meeting will be held on 09/05/19 (Thursday) at 1 p.m. on the following agenda:

- i) Academic plan for 'Add on Course' on "DATA ANALYSIS USING R"
- ii) Miscellaneous

Nikhanta Mukherjee

H.O.D

08/05/2019

(Department of Statistics)

VIVEKANANDA COLLEGE, THAKURPUKUR

DEPARTMENT OF STATISTICS

Resolution of the Departmental Meeting held on 09/05/2019

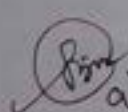
A. Teachers present in the Meeting:

- i) Prof. Nilkanta Mukherjee
- ii) Prof. Sutapa Biswas

B. Minutes of the Meeting:

In the departmental meeting, all the teachers of our department unanimously decided that we will offer our Hons students the ADD-ON course on "DATA ANALYSIS USING R".

- I. It was also decided in the meeting that Prof. Nilkanta Mukherjee of Dept. of Statistics would be the Course Coordinator for the ADD-ON Course.
- II. The Course structure of the ADD-ON Course submitted by Prof. Nilkanta Mukherjee was accepted by all the teachers of the Department.
- III. Certificates would be given to each student at the successful completion of the course

 9/5/19

Nilkanta Mukherjee

09/05/2019

HOD

[Dept. Of Statistics]

VIVEKANANDA COLLEGE THAKURPUKUR

DEPARTMENT OF STATISTICS

Syllabus of value-added course

on

"DATA ANALYSIS USING R" (30 hours)

Unit-1: Introduction [3L-3 Hours]

- ❖ Fundamentals of R
- ❖ Input data through keyboard
- ❖ Importing data from other packages like SPSS file, EXCEL file MINITAB file etc.
- ❖ R as calculator

Unit-2: Summarizing data Graphically [5L-5 Hours]

- ❖ Introduction
- ❖ Axes and text
- ❖ Scatter plot, Bar Chart, Pie Chart, Histogram, Stem and Leaf plot, Line Chart, Box plot.

Unit-3: Descriptive Statistics [6L-6 Hours]

- ❖ Introduction
- ❖ Measures of Central Tendency
- ❖ Measures of Dispersion
- ❖ Skewness and Kurtosis
- ❖ Summary function
- ❖ Packages for analysis of space-time ecological series
- ❖ Creating frequency table
- ❖ Descriptive statistics using ["Stargazer"] package
- ❖ Descriptive statistics using ["Summarytools"] package
- ❖ Correlation using ["corrplot"] package
- ❖ Summarizing Regression using ["Stargazer"] package
- ❖ Building OLS regression model using ["olsrr"] package

Unit-4: Normality [5L-5 Hours]

- ❖ Graphical approach[Normal QQ plot]
- ❖ Plotting Norm QQ plots
- ❖ Test for normality
- ❖ Test for normality["nortest"] package
- ❖ Detecting outliers using multivariate outlier detection["mvoutlier"] package

Unit-5: Hypothesis Testing [5L-5 Hours]

- ❖ Introduction
- ❖ Hypothesis Testing
- ❖ One sample t-test
- ❖ Independent sample t-test
- ❖ Paired sample t-test

Unit-6: Analysis of Variance [6L-6 Hours]

- ❖ One way ANOVA using R commander
 - ❖ One way ANOVA using ["userfriendlyscience"] package
 - ❖ Two-way ANOVA using R commander
 - ❖ Two-way ANOVA using ["userfriendlyscience"] package
 - ❖ Multivariate Analysis of Variance using R commander
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LESSON PLAN OF DATA ANALYSIS USING R

Resource Person: Prof. Nilkanta Mukherjee

Sl no.	Topic	No. of Classes
1	Introduction to R: Installation, command line environment. Overview of capabilities, brief mention of open source philosophy.	1
2	R as a calculator	1
3	Different types of numbers in R. Variables, creating vectors using <code>c()</code> , <code>seq()</code> etc. Functions to summarize a vector: Sum, Mean, SD, Median etc.	2
4	Extracting a subset from the vector.	1
5	R as a graphing calculator: plotting using <code>plot()</code> , <code>lines()</code> , <code>abline()</code> , customizing a graph. Special graphs: Bar plot, Pie chart, Histogram, Box plot, Scatter plot and Regression plot.	5
6	Matrix operation in R	5
7	Loading data from a file: <code>read.table()</code> , <code>read.csv()</code> etc	2
8	Drawing sample from different standard discrete and continuous distributions.	2
9	Exploratory data analysis using R	6
10	Case Study using R	5

Examination will be held at the end program

To
The Principal
Vivekananda College
Thakurpukur, Kolkata-63

SUB: Intimation letter for ADD-ON course on 'DATA ANALYSIS USING R'

Respected Sir,

This is to inform you that to consider this letter as an intimation letter with reference to your letter dated 08/05/2019 and IQAC coordinator dated 03/05/2019. A departmental meeting was held on 09/05/2019 with reference to the notice provided by you and IQAC coordinator. In the meeting we have decided to start the classes of the ADD-ON course on **DATA ANALYSIS USING R** for the session 2019-20 from 14/05/2019 for our Hons. students. We have also decided that the classes will be held with 2 hrs. duration [excluding regular class routine] as per the availability of the computer lab.

Please consider this intimation letter, and allow us to start the said course. Thanking you in anticipation.

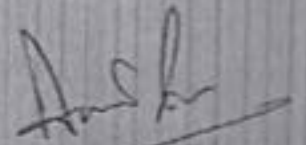
Yours faithfully,

Nikanta Mukherjee
10/05/2019
HOD
[Department of Statistics]

IQAC recommendation

IQAC, Vivekananda College, Thakurpukur, met on 14/Sept/2021, to envisage, formulate and design Add-On Courses, beyond prescribed Curriculum

- A. It was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses for the session 2021-22, Academic calendar, as per UGC guidelines
- B. It was decided that the Departments would be free to choose the Courses on the basis of their (subject) relevance, practicality and feasibility.
- C. It was decided that the Departments would have a Course Coordinator, who would design the Course and Course materials, in consultation with all teachers of the Department.
- D. It was decided that each Department would design its own format; and could follow a blended mode of Instruction,
- E. It was decided that the Departments would be encouraged to use and utilize their own resources while formulating the Add-On Courses, rather than relying on Outsourcing.
- F. IQAC would send its recommendations to the Principal/TIC for perusal and implementation.



14/09/21

Co-ordinator

I Q A C

Vivekananda College

Kolkata-700 063



Ref. No. _____

Date 21/9/21

Notice

It is hereby notified that Vivekananda College, Thakurpukur, will offer Add-On Courses to All Honours students for the Academic year 2021- 22.

Each Department will offer an Add-On Course as per UGC guidelines. Each Course will be structured & overseen by a Course Coordinator, selected from the respective Department. Departmental Heads are requested to take up the matter on an urgent basis.

Thakurpukur
21/9/21

Principal
Vivekananda College
Thakurpukur, Koi-63

Notice

Date: 23/09/21

A meeting will be held on 26/09/21 (Monday) at 6 p.m. in Google

Meet on the following Agenda:-

- i) Academic Plan for Odd Semester
- ii) Routine for Odd Semester
- iii) Academic Plan for 'Add on Course' on Excel & MINITAB
- iv) Miscellaneous

Nilkanta Mukherjee

HOD
[Dept. Of Statistics]

23/09/21

VIVEKANANDA COLLEGE, THAKURPUKUR

DEPARTMENT OF STATISTICS

Resolution of the Departmental Meeting held on 26/09/2021

A. Teachers present in the Meeting:

- i) Prof. Nilkanta Mukherjee
- ii) Prof. Sutapa Biswas
- iii) Prof. Riddhi Das Majumder

B. Minutes of the Meeting:

- i) In the departmental meeting, all the teachers of our department unanimously decided that the hon. Students would be offered a 30 hrs. Add-On Course on "DATA ANALYTICS USING EXCEL/MINITAB" (30 hours).
- ii) It was also decided in the meeting that Prof. Nilkanta Mukherjee of Dept. of Statistics would be the Course Coordinator for the Add-On Course.
- iii) The course structure of the Add-On Course submitted by Prof. Nilkanta Mukherjee was accepted by all the teachers of the Department
- iv) Certificates would be given to each student at the successful completion of the course

Nilkanta Mukherjee

HOD

[Dept. Of Statistics]

26/09/2021

fin
26/9/21

Rdm
26/9/21

VIVEKANANDA COLLEGE THAKURPUKUR

DEPARTMENT OF STATISTICS

Syllabus of value-added course

on

"DATA ANALYTICS USING EXCEL/MINITAB" (30 hours)

Unit-1: A Brief Introduction to Excel [5L-5 Hours]

- ❖ Defining the need for Excel
- ❖ Exploring the New and Enhanced Features of Excel 2010
- ❖ Understanding Workbooks and Worksheets
- ❖ Starting Microsoft Excel 2010 Application

Unit-2: Working with Charts, Smart Art Graphics & Sparklines [5L-5 Hours]

- ❖ Understanding different types of Charts
- ❖ Working with Smart Art Graphics
- ❖ Understanding Sparklines

Unit-3: Visualizing Data using Conditional Formatting, Sorting & Filtering Data [5L-5 Hours]

- ❖ Understanding Conditional Formatting
- ❖ Understanding Sorting & Filtering

Unit-4: Working with Formulas & Functions [5L-5 Hours]

- ❖ Defining The Basic Concepts used in Formulas
- ❖ Defining The Basic Concepts used in a Function
- ❖ Working with Mathematical & Statistical Functions
- ❖ Working with Logical Functions

MINITAB: [10 Hours]

- Introduction of MINITAB as a helping tool in Data Analysis.
- Data visualization techniques using MINITAB.
- Time Series Analysis using MINITAB.
- Analysis of Variance using MINITAB.

Mode of Evaluation: Exam/Assignment

It will be discussed in detail later on.

Special Opportunity:

Doing Project on real life data.

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LESSON PLAN OF DATA ANALYSIS USING EXCEL/MINITAB

Resource Person: Prof. Nilkanta Mukherjee

Sl no.	Topic (using EXCEL)	No. of Classes
1	Introduction, Data Cleaning Outlier detection	1
2	Data Visualization, Data Classification	1
3	Descriptive Statistics & their practical justifications	2
4	Report writing Techniques	1

Resource Person: Prof. Riddhi Das Majumdar

Sl no.	Topic (Theoretical Concept)	No. of Classes
1	Introduction to Statistical Inference	1
2	Constructions of Null Hypothesis, Alternative Hypothesis Critical region, P-Value based conclusions.	1
3	Non-Parametric Testing	1
4	Different types of Testing Techniques based on different Types of objectives.	1

Resource Person: Prof. Sutapa Biswas

Sl no.	Topic (using MINITAB)	No. of Classes
1	Different types of Component Analysis in Time Series	2
2	Relation between Longitudinal Data & Time Series Data	2
3	Stochastic approach in Time Series Analysis such as MA(q), AR(p), ARMA, ARIMA etc.	3
4	Data Driven conclusion writing of Time Series Data.	3

Resource Person: Prof. Nilkanta Mukherjee

Sl no.	Topic	No. of Classes
1	Introduction to MINITAB	2
2	Data description, Group comparison, ANOVA	3
3	Multiple Regression	4
4	Logistic Regression	2

Examination will be held at the end program

To
The Principal
Vivekananda College
Thakurpukur, Kolkata-63

SUB: Intimation letter for ADD-ON course on 'DATA ANALYSIS USING EXCEL/MINITAB'

Respected Sir,

This is to inform you that to consider this letter as an intimation letter with reference to your letter dated 21/09/2021 and IQAC coordinator dated 14/09/2021. A departmental meeting was held on 26/09/2021 with reference to the notice provided by you and IQAC coordinator. In the meeting we have decided to start the classes of the ADD-ON course on **DATA ANALYSIS USING EXCEL/MINITAB** for the session 2021-22 from 19/02/2022 for our Hons. students. We have also decided that the classes will be held with 2 hrs. duration [excluding regular class routine] as per the availability of the computer lab.

Please consider this intimation letter, and allow us to start the said course. Thanking you in anticipation.

Yours faithfully,

Nilkanta Mukherjee

12/02/2022

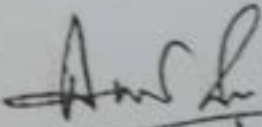
HOD

[Department of Statistics]

IQAC recommendation

C, Vivekananda College, Thakurpukur, met on 18/June/2022, to envisage, formulate and design Add-On Courses, beyond prescribed Curriculum. The IC also decided to organise a program on staff training:

- A. It was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses 2022-23, Academic calendar, as per UGC guidelines.
- B. It was decided that the Departments would be free to choose the Courses on the basis of their (subject) relevance, practicality and feasibility.
- C. It was decided that the Departments would have a Course Coordinator, who would design the Course and Course materials in consultation with all teachers of the Department.
- D. It was decided that each Department would design their own format; and could follow a blended mode of instruction.
- E. It was decided that the Departments would be encouraged to use and utilize their own resources while formulating the Add-On Courses, rather than relying on Outsourcing.
- F. IQAC would send its recommendations to the Principal/TIC for perusal and implementation.
- G. The IQAC would also organise a Staff Training programme - 'Effective Working Style' Conducted by IPE Of Professional Excellence On 21 June 2022 .


18/06/22

Co-ordinator
I Q A C
Vivekananda College
Kolkata-700 063



VIVEKANANDA COLLEGE

(GOVT. SPONSORED) (NAAC ACCREDITED GRADE 'A')

Date.....

Ref. No.....

Notice

It is hereby notified that Vivekananda College, Thakurpukur, will offer Add-On Courses to All Honours students for the Academic year 2022-23.

Each Department will offer an Add-On Course as per UGC guidelines. Each Course will be structured & overseen by a Course Coordinator, selected from the respective Department. Departmental Heads are requested to take up the matter on an urgent basis.

[Handwritten signature]
24/6/22

Principal

Vivekananda College
Thakurpukur, Kol-93

Notice

Date: 03/04/23

A meeting will be held on 06/04/23 at 6 p.m. in Google Meet on the following Agenda:-

- i) Academic Plan for 'Add on Course' on STATA & MINITAB
- ii) Miscellaneous

Nilkantha Mukherjee
HOD 03/04/23
[Dept. Of Statistics]

VIVEKANANDA COLLEGE, THAKURPUKUR

DEPARTMENT OF STATISTICS

Resolution of the Departmental Meeting held on 06/04/2023

A. Teachers present in the Meeting:

- i) Prof. Nilkanta Mukherjee
- ii) Prof. Sutapa Biswas
- iii) Prof. Riddhi Das Majumder

B. Minutes of the Meeting:

- i) In the departmental meeting, all the teachers of our department unanimously decided that the hon's. Students would be offered a 40 hrs. Add-On Course on "DATA ANALYTICS USING STATA/MINITAB" (40 hours).
- ii) It was also decided in the meeting that Prof. Nilkanta Mukherjee of Dept. of Statistics would be the Course Coordinator for the Add-On Course.
- iii) The course structure of the Add-On Course submitted by Prof. Nilkanta Mukherjee was accepted by all the teachers of the Department
- iv) Certificates would be given to each student at the successful completion of the course

Nilkanta Mukherjee

HOD
[Dept. Of Statistics]

06/04/2023

[Signature]
6/4/23

Rdm
6/4/23

VIVEKANANDA COLLEGE THAKURPUKUR

DEPARTMENT OF STATISTICS

Syllabus of value-added course

on

“DATA ANALYTICS USING STATA/MINITAB” (40 hours)

Unit-1: A Brief Introduction to Stata [10L-10 Hours]

Getting help and information, Running Stata, Conventions used in the book, Create Datasets in Stata, Stata commands, Data management, Graphics, Stata as a calculator, Estimation, Brief introduction to programming, Keeping Stata up to date, Exercises.

Unit-2: Data Description and Simple Inference and ANOVA [10L-10 Hours]

Description of data, Group comparison and correlations, Analysis using Stata, Exercises

Analysis of Variance I- Description of data, Analysis of variance model, Analysis using Stata, Exercises

Analysis of Variance II: Description of data, Analysis of variance model, Analysis using Stata, Exercises

Unit-3: Regression analysis [10L-10 Hours]

Multiple Regression

Description of data, the multiple regression model, Analysis using Stata, Exercises

Logistic Regression

Description of data, the logistic regression model, Analysis using Stata, Exercises

MINITAB: [10 Hours]

- Introduction of MINITAB as a helping tool in Data Analysis.
- Data visualization techniques using MINITAB.
- Time Series Analysis using MINITAB.
- Analysis of Variance using MINITAB.

Mode of Evaluation: Exam/Assignment

It will be discussed in detail later on.

Special Opportunity:

Doing Project on real life data.

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LESSON PLAN OF DATA ANALYSIS USING STATA/MINITAB

Resource Person: Prof. Nilkanta Mukherjee

Sl no.	Topic (using MINITAB)	No. of Classes
1	Introduction, Data Cleaning Outlier detection	1
2	Data Visualization, Data Classification	1
3	Descriptive Statistics & their practical justifications	2
4	Report writing Techniques	1

Resource Person: Prof. Riddhi Das Majumdar

Sl no.	Topic (Theoretical Concept)	No. of Classes
1	Introduction to Statistical Inference	1
2	Constructions of Null Hypothesis, Alternative Hypothesis Critical region, P-Value based conclusions.	1
3	Non-Parametric Testing	1
4	Different types of Testing Techniques based on different Types of objectives.	1

Resource Person: Prof. Sutapa Biswas

Sl no.	Topic (using MINITAB)	No. of Classes
1	Different types of Component Analysis in Time Series	2
2	Relation between Longitudinal Data & Time Series Data	2
3	Stochastic approach in Time Series Analysis such as MA(q), AR(p), ARMA, ARIMA etc.	3
4	Data Driven conclusion writing of Time Series Data.	3

Resource Person: Prof. Nilkanta Mukherjee

Sl no.	Topic	No. of Classes
1	Introduction to Stata	2
2	Data description, Group comparison, ANOVA	3
3	Multiple Regression	4
4	Logistic Regression	2

Examination will be held at the end program

To
The Principal
Vivekananda College
Thakurpukur, Kolkata-63

SUB: Intimation letter for ADD-ON course on 'DATA ANALYTICS USING STATA/MINITAB'

Respected Sir,

This is to inform you that to consider this letter as an intimation letter with reference to your letter dated 24/06/2022 and IQAC coordinator dated 18/06/2022. A departmental meeting was held on 06/04/2023 with reference to the notice provided by you and IQAC coordinator. In the meeting we have decided to start the classes of the ADD-ON course on **DATA ANALYTICS USING STATA/MINITAB** for the session 2022-23 from 11/04/2023 for our Hons. students. We have also decided that the classes will be held with 2 hrs. duration [excluding regular class routine] as per the availability of the computer lab.

Please consider this intimation letter, and allow us to start the said course. Thanking you in anticipation .

Yours faithfully,

Nilkanta Mukherjee

HOD

[Department of Statistics]

04/04/2023