



P. N. DAS COLLEGE

Santinagar, Palta, P.O.: Bengal Enamel, North 24 Parganas, Pin - 743122 (W.B.)
Phone : (033) 2592 1327, Fax : (033) 2592 1327, e-mail : pndc.principal11@gmail.com
Website : www.pndacollege.in

NAAC ACCREDITED - 2016

Ref:

Date

NOTICE

It is to inform all concerned that classes of ADD-ON course on “ Introduction to Basic Statistics and SPSS” will be organised jointly by the departments of Economics and Mathematics on and from 06.06.2023 as per the time table attached herewith. At the end of the course there will be an assessment to evaluate and assess the learning level/course outcome of the students and every successful candidate shall be provided certificate after that. Class Routine, Syllabus and other details are attached herewith. Classes shall be taken as per the modules mentioned against each course.

Name of the Course Co-ordinator ;

Joint Co-ordinators :

1. Dr. Madhuchhanda Lahiri, Mob No-9433264133

2. Dr. Bablu Biswas, Mob No- 8777688173


Principal
P.N. Das College
Palta, Bengal Enamel, N. 24 Pgs



42- Hours Add-on Course

on

Introduction to Basic Statistics and SPSS

for Students of Social Science

Learning Objectives of the Course

On completion of the course, students will be able to

- Compute basic measures of central tendency and dispersion
- summarize data visually and numerically
- learn and apply the tools of formal inference
- do statistical analysis with professional software



organized jointly by

Department of Economics & Department Mathematics

P.N. Das College

(Blended Mode)

Chief Patron:

Dr Sharmila De

Principal

P.N. Das College

Faculties assigned:

Dr Madhuchhanda Lahiri

Associate Professor & HoD

Department of Economics

P.N. Das College

Dr Bablu Biswas

Assistant Professor & HoD

Department of Mathematics

P.N. Das College

Prof Priya Biswas

Assistant Professor

Department of Economics

P.N. Das College

COURSE CONTENT (40 Hours):

MODULE I

1. Meaning and scope of statistics: 1 hour

- Variable
- Attribute
- Primary and Secondary Data
- Population and Sample
- Census and Sample Survey
- Classification of data and Tabulation.

2. Frequency Distributions: 1 hour

- Frequency distribution of an Attribute
- Frequency distribution of a discrete variable
- Frequency distribution of a continuous variable
- Construction of Frequency distribution from raw data
- Cumulative Frequency distribution.

3. Charts and Diagrams: 3 Hours

- Meaning and functions of Graphs
- Types of Charts and Diagrams
- Line Diagram, Bar Diagram,
- Pie Diagram,
- Pictogram,
- Statistical Map,
- Frequency Polygon,
- Histogram,
- Ogive or Cumulative Frequency Polygon,

4. Measures of Central Tendency: 3 Hours

- Arithmetic Mean (AM),
- Geometric Mean (GM),
- Harmonic Mean (HM),
- Median,
- Mode

5. Measures of Dispersion: 3 Hours

- Meaning and necessity,
- Range,
- Quartile Deviation (QD),
- Mean Deviation (MD),
- Standard Deviation (SD),
- Coefficient of Variation(CV)

6. Theoretical Distribution: 4 Hours

- Random variable and Probability Distribution
- Discrete Probability Distribution
- Expectations-Mean, Variance, Moments
- Uniform Distribution
- Poisson Distribution
- Binomial Distribution
- Multinomial Distribution
- Joint Distribution of Two Variables
- Normal Distribution

7. Sampling Theory: 3 Hours

- Meaning and objective of Sampling
- Types of Sampling
- Methods of Drawing Random Sample
- Sampling Distribution
- Standard Error
- Probable Error

8. Theory of Estimation: 4 Hours

- Properties of Estimators
- Point Estimation

- Methods of Point Estimation
- Criteria for good estimators
- Interval Estimation
- Alternative methods of Estimations
- Confidence intervals
- Meaning of Hypothesis Testing
- Types of Error and level of significance
- Power of a Test
- Steps in Hypothesis Testing

9. Correlation Analysis: 4 Hours

- Meaning of Correlation
- Concept of Co-relation Co-efficient'
- Co-variance
- Concept of Auto correlation
- Co-efficient of Auto Correlation
- Concept of Multicollinearity

10. Regression Analysis: 4 Hours

- Stochastic and Non-stochastic Relationship
- Simple Linear Regression Model
- Regression Co-efficient
- Estimation of Regression Parameters
- Least Square Estimators
- Goodness of Fit
- Forecasting Ability and R^2

MODULE II

11. Statistical Analysis for Research using SPSS: 10 Hours

- Introduction to SPSS
- Importing data and recoding variables.
- Making data visualizations
- Analyzing data
- Computing frequencies and correlations
- Measures of Central Tendency
- Tendency and Dispersion in SPSS
- Create and Edit Graphs, Charts and Plots in SPSS
- Normality Test
- ANOVA
- Pearson Correlation
- Spearman Ranked Order
- Correlation
- Independent Samples T- test
- Paired Samples T-test
- Chi-Square
- Linear Regression
- Multiple Regression
- Building Predictive Models

Course Evaluation : 2 hours

Class Schedule

- 6.6.23(Tuesday) ML(offline) 4.00- 6.00 p.m. Ch- 1, 2
- 7.6.23 (Wednesday) PB(offline) 4.00-6.00p.m. Ch-3
- 8.6.23 (Thursday) PB(online) 4.00-6.00p.m. Ch-3, 4
- 9.6.23 (Friday) ML(online) 4.00-6.00p.m. Ch-4
- 10.6.23 (Saturday) ML(offline) 4.00-6.00p.m. Ch-5
- 12.6.23 (Monday) BB(online) 6.30 - 8.30p.m. Ch-6
- 13.6.23 (Tuesday) BB(online) 6.30 -8.30p.m. Ch-6
- 14.6.23 (Wednesday) PB(offline) 4.00-6.00p.m. Ch-7
- 15.6.23 (Thursday) PB(offline) 4.00-6.00p.m. Ch-8
- 16.6.23 (Friday) BB(online) 6.30- 8.30p.m. Ch- 8
- 17.6.23 (Saturday) ML(offline) 4.00-6.00p.m. Ch-9
- 19.6.23 (Monday) PB(offline) 4.00-6.00p.m. Ch-9
- 20.6.23 (Tuesday) BB(online) 6.30-8.30p.m. Ch-10
- 21.6.23 (Wednesday) PB(offline) 4.00-6.00p.m. Ch-10
- 22.6.23 (Thursday) ML(offline) 4.00-6.00p.m. Ch-11
- 23.6.23 (Friday) BB(online) 6-30- 8.30p.m. Ch-11
- 24.6.23 (Saturday) BB(online) 6.30- 8.30p.m. Ch-11
- 26.6.23 (Monday) PB(offline) 4.00-6.00p.m. Ch-11
- 27.6.23 (Tuesday) ML(offline) 4.00-6.00p.m. Ch-11
- 28.6.23 (Wednesday) BB(online) 6.30- 8.30p.m. Ch-11

30.6.23 (FRIDAY) ML(Blended) 4.00-6.00p.m. TEST(MCQ)