



**Darrang College
(Autonomous),
Tezpur-784001**

Syllabus for Certificate Course

**Course Name: Advanced Statistics of
Geographers**

Approved by three Experts
dt. 24/12/2024

To,

The Head of the Department of Geography

Gauhati University

Through the Principal of Darrang College

Sub: Recommendation for certificate course in Geography

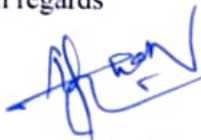
Sir,

With due respect it is informed that the Department of Geography, Darrang college is going to start a certificate course on "Advance Statistics for Geographers" from the next year (2025). As per rule, we need at least two persons' approval.

So, I request you kindly take necessary action for receiving approval from the following faculties of the Department of Geography, Gauhati University.

Thanking you

With regards


21/12/2024

Dr. Hemantajyoti Nath

HOD, P.G. Department of Geography

Darrang College, Tezpur

Forwarded for the needful
Baik
21/12/24
Principal
Darrang College, Tezpur
Assam

Name of the faculties for approval

1. Prof. Dhrubajyoti Saharia (HOD)
2. Prof. Bimal Kr. Kar
3. Dr. Manash jyoti nath
- ✓ 4. Prof. Ashok Kr. Bora (Retd. HOD of G.U.)

N.B: The syllabus of the certificate course is attached herewith the application.

Certificate Course in Geography

“Advance Statistics for Geographers”

Statistics play an important role in the study of geographical phenomena since 1940s when Quantitative revolution started physical geography. It was much later started in human geography. Geography is a natural science and the study of physical and cultural landscape requires scientific investigation so that the process form study can be done with precision and accuracy. As our students have very little knowledge about mathematics, statistics and digital methods, it is difficult for them to analyse the geographical data. So the department has decided to do certificate course on “Advance Statistical Techniques in Geographers” to make our students understand the objectives, methods & techniques of quantitative analysis in geographical study.

Advance Statistics for Geographers

(3 - months)

Introduction

Number of Classes

Unit: 1 Collection of data

2

- 1.1 Primary data
- 1.2 Secondary data
- 1.3 Framing questionnaire

Test: Objective types questions (MCQ)
Theoretical Questions

Marks: 10
Marks: 10

Unit: 2 Classification and Tabulation Of data

4

2.1 Classification of data:

- 2.1.1 Geographical Data or Spatial Data
- 2.1.2 Chronological data
- 2.1.3 Quantitative Data
- 2.1.4 Qualitative Data

2.2 Types of Series

- 2.2.1 Discrete Series
- 2.2.2 Continuous Series

2.3 Frequency distribution

2.4 Tabulation of data

2.5 Diagrammatic representation

Test: Objective types questions (MCQ)
Practical Problems

Marks: 10
Marks: 10

Unit: 3 Measures of Central tendency

3

- 3.1 Mean
- 3.2 Median

2



3.3 Mode

Test: Objective types questions (MCQ)

Marks: 10

Theoretical Questions

Marks: 10

Practical Problems

Marks: 10

Unit: 4 Dispersion

3

4.1 Methods of Measuring Dispersion

4.1.1 Range

4.1.2 Quartile Deviation

4.1.3 Mean Deviation

4.2 Standard Deviation

4.3 Relative Dispersion

4.4 Practical

Test: Objective types questions (MCQ)

Marks: 10

Practical Problems

Marks: 10

Unit: 5 Skewness and Kurtosis ~~Practical~~

2

Test: Objective types questions (MCQ)

Marks: 10

Practical Problems

Marks: 10

Unit: 6 Correlation and Regression

4

6.1 Significance of studying correlation

6.2 Types of correlation

6.3 Methods of Correlation

6.4 Significance of Regression Analysis

6.5 Methods of studying regression.

6.6 Practical

Test: Objective types questions (MCQ)

Marks: 10

Practical Problems

Marks: 10

Unit: 7 Sampling

5

7.1 Types of sampling

7.2 Probability and Non-Probability Sampling

7.3 Sampling size

7.4 Parameters and Statistics

7.5 Statistical Hypothesis

7.6 Levels of Significance

7.7 Degree of Freedom

7.8 Testing of Hypothesis

7.8.1 Students T- Test

7.8.2 Z- Test

7.9 Practical

Test: Objective types questions (MCQ)

Marks: 10

Theoretical Questions

Marks: 10

Practical Problems

Marks: 05

Unit: 8 Probability Distribution

3

- 8.1 Normal Distribution
- 8.2 Binomial Distribution
- 8.3 Poisson Distribution
- 8.4 Practical

Test: Objective types questions (MCQ)
Theoretical Questions
Practical Problems

Marks: 10
Marks: 10
Marks: 05

Unit: 9 Use of SPSS and MS- Excel for data analysis.

3

Unit: 10 Field Survey

1

Course Coordinator: Dr. Lakshmi Roy (Associate Professor, Department of Geography)
Joint Coordinator: Mr. Gulap Sonowal (Assistant Professor, Department of Geography)

Approved
(Signature)
(Manash J. Nath)
Asst Prof. Dept of Geography
Gauhati University

Dr. Manash J. Nath
Assistant Professor
Department of Geography
Gauhati University

Approved
(Signature) 24/12/24
(Prof. Ashok Kumar Bora)
Retired Prof. of Geography, G.U.

Professor (Retired)
Department of Geography
Gauhati University
Guwahati- 781014

Approved
(Signature) 29/11/24
(D. Sarma)
Prof. & Head
Dept. of Geography
Gauhati University

Professor & Head
Department of Geography
Gauhati University
Guwahati- 781014.