# 4<sup>th</sup> Semester Topic-wise Time Plan Paper: STS-G-CC-4-4-TH Applications of Statistics

Name of the teacher: Daita Lahiri Initials: DL

# **Teaching Objective:**

- To introduce fundamentals of statistical sampling theory and need for it in today's world.
- To help students learn basic concepts of index numbers and demographic methods.

• To introduce the applications of Statistics and its requirement in several real-life aspects.

<u>Units</u>	Hours Allotted	<u>Topics (as per</u> <u>curriculum)</u>	<u>Learning outcomes</u> (Output)	<u>Teaching</u> <u>method</u>	<u>Assessment</u>
Unit 1	20 Hours	<ul> <li>a)Introduction to Population, sample and sampling theory.</li> <li>b)Types of sampling</li> <li>c)Simple random sampling</li> <li>d)Stratified random sampling.</li> </ul>	<ul> <li>a)Knowledge of sampling theory and several related concepts</li> <li>b)Understanding the different sampling techniques and estimating the parameters involved.</li> </ul>	a)Interactive- Lecture b)Problem- solving c)Real life application	Problem solving and Assignments
Unit 2	10 Hours	<ul> <li>a)Index numbers</li> <li>b)Construction of index numbers</li> <li>c)Uses and limitations of index number</li> <li>d)Tests for index numbers</li> </ul>	<ul> <li>a)Understanding the concept of index numbers and their importance.</li> <li>b)To be able to construct index number by several methods.</li> </ul>	a)Interactive- Lecture b)Problem- solving c)Real life application	Problem solving and Assignments
Unit 3	10 Hours	<ul><li>a)Demographic Methods</li><li>b)Measurement of mortality.</li></ul>	a)Get a clear idea about several demographic methods and gaining the knowledge of measuring mortality.	a)Interactive- Lecture b)Problem- solving c)Real life application	Problem solving and Assignments

# 4<sup>th</sup> Semester Topic-wise Time Plan Paper: STS-G-CC-4-4-P Applications of Statistics Lab

# Name of the teacher: Daita Lahiri Initials: DL

## **Teaching Objective:**

To help students learn practical problem solving skill based on datasets arising from various real life scenarios.

Units	Hours Allotted	<u>Topics (as per</u> <u>curriculum)</u>	<u>Learning outcomes</u> (Output)	Teaching method	Assessment
Unit 1	NA	<ul> <li>a) Practical on Simple random sampling (SRSWR and SRSWOR)</li> <li>b) Construction of price and quantity index numbers.</li> <li>c) Construction of Consumer and wholesale index numbers.</li> </ul>	<ul> <li>a)Using the theoretical concepts to solve real-life problems.</li> <li>b)Grow practical problem skills.</li> </ul>	Demonstration of Problem solving	Practical Problem solving and Assignments

# 4<sup>th</sup> Semester Topic-wise Time Plan Paper: STS-G-CC-4-4-TH Applications of Statistics

Name of the teacher: Shreemoyee Chakraborty. Initials: SC

## **Teaching Objective:**

- To introduce fundamentals of economic time series and its need in today's world.
- To help students learn basic concepts of economic time series and demographic methods.
- To introduce the applications of Statistics and its requirement in several real-life aspects.

<u>Units</u>	<u>Hours</u> <u>Allotted</u>	<u>Topics (as per</u> <u>curriculum)</u>	<u>Learning outcomes</u> (Output)	<u>Teaching</u> <u>method</u>	Assessment
Unit 2	10 Hours	<ul> <li>a)Introduction to economic time series.</li> <li>b)Additive and multiplicative models.</li> <li>c)Measurement of trend.</li> <li>d)Moving average method.</li> </ul>	<ul> <li>a)Knowledge of economic time series and several related concepts</li> <li>b)Understanding the different methods to measure the trend.</li> <li>c)Learning moving average.</li> </ul>	a)Interactive- Lecture b)Problem- solving c)Real life application	Problem solving and Assignments
Unit 3	10 Hours	<ul> <li>a)Knowledge of life tables.</li> <li>b)Measurement of fertility and reproduction rates.</li> <li>c)Measurement of population growth.</li> </ul>	<ul> <li>a)Understanding life tables and its uses.</li> <li>b)Understanding the measurement of fertility and reproduction rates, and population growth.</li> </ul>	a)Interactive- Lecture b)Problem- solving c)Real life application	Problem solving and Assignments

# 4<sup>th</sup> Semester Topic-wise Time Plan Paper: STS-G-CC-4-4-P Applications of Statistics Lab

Name of the teacher: Shreemoyee Chakraborty. Initials: SC

#### **Teaching Objective:**

To help students learn practical problem-solving skill based on datasets arising from various real-life scenarios.

<u>Units</u>	Hours Allotted	<u>Topics (as per</u> <u>curriculum)</u>	<u>Learning outcomes</u> <u>(Output)</u>	<u>Teaching</u> <u>method</u>	Assessment
Unit 1	NA	<ul> <li>a) Measurement of trend in time series.</li> <li>b) Computation of measures of mortality.</li> <li>c) Completion of life table.</li> <li>d) Computation of measures of fertility and population growth.</li> </ul>	<ul> <li>a) Using the theoretical concepts to solve real-life problems.</li> <li>b) Grow practical problem skills.</li> </ul>	Demonstration Of Problem solving	Practical Problem solving and Assignments