

| Lecture Plan                                                                                                                                                               |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|--------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                            |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
| Name of the College: Government College of Arts, Science and Commerce. Sanquelim - Goa                                                                                     |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
|                                                                                                                                                                            |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
| Name of Faculty: Ms. Sampada Desai                                                                                                                                         |              |            |                          | Subject: Economics                                                                                                |                       |                                      |                                                                                                              |
|                                                                                                                                                                            |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
| Paper code: ECO200 Basic Statistics                                                                                                                                        |              |            |                          | Program: TYBA                                                                                                     |                       | Division: A                          |                                                                                                              |
|                                                                                                                                                                            |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
| Academic year: 2026-2027                                                                                                                                                   |              |            |                          | Semester: V                                                                                                       |                       | Total Lectures: 15                   |                                                                                                              |
|                                                                                                                                                                            |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
| Course Objectives:<br>1. Learn the tools for analyzing data<br>15 Understand the use of spreadsheets                                                                       |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
|                                                                                                                                                                            |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
| Course Outcome:<br>1. Summarize and explore data in spreadsheets<br>2. Measures of association in spreadsheets                                                             |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
|                                                                                                                                                                            |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
| Student Learning Outcome:<br>1. Students will be able to summarize and explore data in spreadsheets.<br>2. Students will be able to measure of association in spreadsheets |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
|                                                                                                                                                                            |              |            |                          |                                                                                                                   |                       |                                      |                                                                                                              |
| Month                                                                                                                                                                      | Lecture From | Lecture To | No. of lectures allotted | Topic, Subtopic to be covered                                                                                     | Exercise/ Assignm ent | ICT Tools                            | Reference books                                                                                              |
| JULY                                                                                                                                                                       | 01/07/2026   | 04/07/2026 | 2                        | Unit 3: Exploring Data with Descriptive Statistics<br>Different Types of Data • Discrete and Continuous (revise), | .                     | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
|                                                                                                                                                                            | 06/07/2026   | 11/07/2026 | 2                        | Measuring the Center of Quantitative Data • Describing the Center: The Mean and the Median o Mean o Median        | .                     | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
|                                                                                                                                                                            | 13/07/2026   | 18/07/2026 | 2                        | • A Closer Look at the Mean and the Median                                                                        | .                     | PowerPoint presentation/ Smart board | Alan Agresti, Christine                                                                                      |

|        |            |            |   |                                                                                                                                   |   |                                      |                                                                                                              |
|--------|------------|------------|---|-----------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------|--------------------------------------------------------------------------------------------------------------|
|        |            |            |   | (notation, properties, and differences, impact of outliers)                                                                       |   |                                      | Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data.                         |
|        | 20/07/2026 | 25/07/2026 | 2 | ● Comparing the Mean and Median ● Mode                                                                                            | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
|        | 27/07/2026 | 31/07/2026 | 2 | Measuring the Variability of Quantitative Data (include numerical problems)                                                       | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
| AUGUST | 01/08/2026 | 01/08/2026 | 2 | Measuring Variability: The Range, The Standard Deviation, and Variance (include numerical problems)                               | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
|        | 03/08/2026 | 08/08/2026 | 2 | Interpreting the Magnitude of s: The Empirical Rule (only understanding the empirical rule in context to the normal distribution) | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
|        | 10/08/2026 | 15/08/2026 | 2 | Sample Statistics and Population Parameters (recall in context                                                                    | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin,                                                                            |

|           |            |            |   |                                                                                                                                                        |   |                                      |                                                                                                              |
|-----------|------------|------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------|--------------------------------------------------------------------------------------------------------------|
|           |            |            |   | of mean and standard deviation)                                                                                                                        |   |                                      | and Bernhard Klingenberg (2017) The Art and Science of Learning from Data.                                   |
|           | 17/08/2026 | 22/08/2026 | 2 | Using Measures of Position to Describe Variability (include only simple non frequency ungrouped data as in the text for calculations                   | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
|           | 24/08/2026 | 29/08/2026 | 2 | Measures of Position: The Quartiles and Other Percentiles, The Interquartile Range                                                                     | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
| SEPTEMBER | 01/09/2026 | 05/09/2026 | 2 | Detecting Potential Outliers                                                                                                                           | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
|           | 07/09/2026 | 12/09/2026 | 2 | Unit 4: Exploring Data with Associations: Association: Contingency, Correlation, and Regression (introduce the need for association between variables) | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and Bernhard Klingenberg (2017) The Art and Science of Learning from Data. |
|           | 21/09/2026 | 26/09/2026 | 2 | Response Variables (Dependent) and Explanatory                                                                                                         | . | PowerPoint presentation/ Smart board | Alan Agresti, Christine Franklin, and                                                                        |

|                        |               |            |   |                                                                                                                                                          |   |                                            |                                                                                                                                               |
|------------------------|---------------|------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|                        |               |            |   | Variables<br>(Independent)                                                                                                                               |   |                                            | Bernhard<br>Klingenberg<br>(2017) The<br>Art and<br>Science of<br>Learning<br>from Data.                                                      |
|                        | 28/09/2026    | 30/09/2026 | 2 | The Association<br>Between Two<br>Categorical<br>Variables.<br>Contingency<br>Tables                                                                     | . | PowerPoint<br>presentation/<br>Smart board | Alan<br>Agresti,<br>Christine<br>Franklin,<br>and<br>Bernhard<br>Klingenberg<br>(2017) The<br>Art and<br>Science of<br>Learning<br>from Data. |
| OCTOBER                | 01/10/2026    | 03/10/2026 | 2 | Conditional<br>Proportions.<br>Looking for an<br>Association                                                                                             | . | PowerPoint<br>presentation/<br>Smart board | Alan<br>Agresti,<br>Christine<br>Franklin,<br>and<br>Bernhard<br>Klingenberg<br>(2017) The<br>Art and<br>Science of<br>Learning<br>from Data. |
|                        | 05/10/2026    | 10/10/2026 |   | Measuring the<br>Strength of an<br>Association<br>Between Two<br>Categorical<br>Variables The<br>Association<br>Between Two<br>Quantitative<br>Variables | . | PowerPoint<br>presentation/<br>Smart board | Alan<br>Agresti,<br>Christine<br>Franklin,<br>and<br>Bernhard<br>Klingenberg<br>(2017) The<br>Art and<br>Science of<br>Learning<br>from Data. |
|                        | 12/10/2026    | 17/10/2026 |   | Revisiom                                                                                                                                                 |   |                                            | Alan<br>Agresti,<br>Christine<br>Franklin,<br>and<br>Bernhard<br>Klingenberg<br>(2017) The<br>Art and<br>Science of<br>Learning<br>from Data. |
|                        |               |            |   |                                                                                                                                                          |   |                                            |                                                                                                                                               |
|                        | Componen<br>t | Max Marks  |   |                                                                                                                                                          |   |                                            |                                                                                                                                               |
| Assessmen<br>t Rubrics | ISA 1         | 7.5        |   |                                                                                                                                                          |   |                                            |                                                                                                                                               |

|  |                      |     |  |  |  |  |  |
|--|----------------------|-----|--|--|--|--|--|
|  | ISA 2                | 7.5 |  |  |  |  |  |
|  | ISA 3                | 7.5 |  |  |  |  |  |
|  | Project              |     |  |  |  |  |  |
|  | Semester<br>End Exam | 60  |  |  |  |  |  |