

## Advanced Statistical Analysis using JASP & Jamovi

### ***Course Description:***

A three-day workshop via Zoom. An essential goal of this course is to approach data analysis from the perspective of understanding statistics and their relationship to research rather than focus on mathematics or memorizing formulas. The softwares that the participants will use in this workshop are FREEWARES, in other words, these are free and legitimate. JASP and JAMOVI has been in the field of academe for a decade. However, no private organizations are promoting these freeware other than STRATONE.

Course Description: Within this course, participants will study multivariate techniques, data transformation, bootstrapping, including model testing, decision theory, and advanced statistical techniques. The first day of the workshop will serve as a refresher in basic statistics.

### ***Course Objectives:***

1. Review the fundamentals of statistics.
2. Learn how and when to use bootstrapping and data transformation.
3. Learn the application of advanced statistics.

### ***Course Outline***

#### *Day 1 (Review of Basic Statistics)*

- \*Introduction to Jasp and JAMOVI
- \*Data Encoding using MS Excel
- \*Running and Interpreting Frequencies using JAMOVI
- \*Introduction to basic statistics: mean, median, mode and normal distribution
- \*Inferential Statistics (Chi-square of Independence, Comparison of Means, Correlation)

#### *Day 2*

- \*Data Transformation
- \*Bootstrapping
- \*Linear Regression (Simple and Multiple)
- \*Logistic Resgression

#### *Day 3*

- \*Two-way ANOVA
- \*MANOVA
- \*ANCOVA
- \*Factor Analysis



**PROGRAM OF ACTIVITIES: ADVANCED STATISTICAL ANALYSIS USING JASP & JAMOVI**

*Day 1: Basics*

|  |                    |
|--|--------------------|
| <i>Opening of the workshop (Doxology, National Anthem and opening remarks)</i>   | 8:45AM to 9:00AM   |
| <i>Introduction to Jasp and JAMOVI</i>   | 9:01AM to 10:30AM  |
| <b><i>Recess/Break</i></b>   | 10:31AM to 10:45AM |
| <i>Data Encoding using Excel</i>   | 10:46AM to 11:59AM |
| <b><i>Lunch Break</i></b>  | 12:00PM to 1:00PM  |
| <i>*Running and Interpreting Frequencies using JAMOVI</i><br><i>*Introduction to basic statistics:mean, median, mode and normal distribution</i> | 1:01PM to 2:30PM   |
| Inferential Statistics (Chi-square of Independence, Comparison of Means, Correlation)  | 2:31PM to 4:00PM   |
| <b><i>Dismiss</i></b>  |                    |

*Day 2: Workshop*

|  |                    |
|--|--------------------|
| <i>Consultation</i>  | 8:45AM to 9:00AM   |
| <i>Data Transformation (Theory, Application and Workshop)</i>                          | 9:01AM to 10:30AM  |
| <b><i>Recess/Break</i></b>   | 10:31AM to 10:45AM |
| <i>Bootstrapping (Application, Practices and Workshop)</i>                             | 10:46AM to 11:59AM |
| <b><i>Lunch Break</i></b>  | 12:00PM to 1:00PM  |
| <i>Linear Regression (Simple and Multiple) - (Application, Practices and Workshop)</i> | 1:01PM to 2:30PM   |
| <b><i>Break/Recess</i></b>   | 2:31PM to 2:45PM   |
| <i>Logistic Regression (Application, Practices and Workshop)</i>                       | 2:46PM to 4:00PM   |
| <b><i>Dismiss</i></b>  |                    |

*Day 3: Workshop*

|  |                    |
|--|--------------------|
| <i>Two-way ANOVA (Application, Practices and Workshop)</i>   | 9:01AM to 10:30AM  |
| <b><i>Recess/Break</i></b>                                   | 10:31AM to 10:45AM |
| <i>MANOVA (Application, Practices and Workshop)</i>          | 10:46AM to 11:59AM |
| <b><i>Lunch Break</i></b>                                    | 12:00PM to 1:00PM  |
| <i>ANCOVA (Application, Practices and Workshop)</i>          | 1:01PM to 2:30PM   |
| <b><i>Break/Recess</i></b>                                   | 2:31PM to 2:45PM   |
| <i>Factor Analysis (Application, Practices and Workshop)</i> | 2:31PM to 4:00PM   |

*Dismiss*

THE SPEAKER:



**JEROME L. BUHAY**

- Researcher/Statistician/Consultant
- Professor at De La Salle University – Dasmariñas
- PhD in Mathematics Education (Ongoing)
- PhD in Statistics (with earned units)
- Master of Arts in Mathematics
- BS in Applied Mathematics maj. In Statistics

**REQUIRED SOFTWARE FOR THIS WORKSHOP:**

- **Zoom**
- **Jasp (Freeware Statistical Software)**
- **JAMOVI (Freeware Statistical Software)**
- **Gmail account for Google Classroom**

