TENTATIVE TRAINING OUTLINE
Training-Workshop on Statistics for Research Teachers, Advisers, and Panelists in Multidisciplinary Fields Using Open-Source Software Applications
October 29-31, 2025
Holiday Suites, Puerto Princesa, Palawan, Philippines

OBJECTIVES OF THE TRAINING-WORKSHOP:

- *To enhance understanding of core statistical concepts and principles as research teachers, advisers, and panelists;*
- *To learn the practical application of statistical methods using open-source software;*
- *To develop expertise in interpreting and visualizing research data; and*
- *To critically evaluate the role of AI applications and tools in statistical analysis.*

Requirement:
   Participants should bring a laptop and mobile/pocket wi-fi for the discussion, exercises and workshops.

DAY 1: 29 October 2025

8:00 am- 5:00 pm   ***Arrival of Participants***
                                        Pre-registration and distribution of training kits

DAY 1: 30 October 2025

8:00 am- 9:00 am   ***Registration and distribution of training kits***

9:01 am-9:15 am   Opening Program Invocation
                                        National Anthem
                                        Introduction to the Resource Speaker

9:16-10:30 am   Session 1

                                        Core Statistical Concepts

Data Types and Measurement Scales
Descriptive and Inferential Statistics
Hypothesis Testing Fundamentals
Effect Size and Confidence Intervals

10:31-12:00 nn   Session 2

Introduction to Open-Source Software in Statistics

Why use open-source software?
Introduction to open-source software: JASP/JAMOVI
Guided Installation and tour of user interface

12:01-1:00 pm   **LUNCH BREAK**

1:01 pm –3:00 pm   Session 3

Data Visualization for Research

Principles of effective Data Visualization
Choosing the right graph for the right data
(bar charts, histograms, scatter plots)

3:00 pm – 4:30 pm   Session 4

Introduction to Inferential Statistics

The Logic of Hypothesis Testing: Null and Alternative
Hypotheses
Understanding p-values and confidence intervals

4:31 pm – 5:00 pm   **Open Forum/Sharing New Learning and Insights**

Day 2: 31 October 2025

8:00 am - 8:45 am   *Registration*

8:45 am - 9:00 am   **Opening Program**
                                     Invocation
                                     National Anthem
                                     Synthesis of Day 2

9:01 am – 10:30 am   Session 5

                                     Exploring Relationships: Correlation and Regression

                                     Understanding the difference between correlation and causation
                                     Simple Linear Regression: Predicting an outcome based on a single predictor

10:31-12:00 nn   *Session 6*

                                     Non-Parametric Alternatives

                                     When to use non-parametric tests?
                                     Introduction to common non-parametric tests

12:01 pm – 1:00 pm   **LUNCH BREAK**

1:01 pm – 2:30 pm   Session 7

                                     Interpreting Results and Writing the Research Conclusion

                                     Translating statistical output into clear, concise, and defensible research findings.
                                     Writing an effective results and discussion section

2:30 pm – 4:30 pm

Session 8

Role of AI in Statistical Analysis

*Introduction of AI applications and tools for
Data analysis*
*Leveraging AI for data cleaning, pattern
recognition, and hypothesis generation*
*Teaching and monitoring students in the
responsible use of AI as research teachers,
advisers and panelists*

4:01 pm – 5:00 pm

Feedback
Open Forum/Sharing New Learnings and Insights
Presentation of Certificates
Closing Program

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