Greetings!

The University of the Philippines School of Statistics, in collaboration with the University of the Philippines Statistical Center Research Foundation, Inc. (UPSCRFI), is pleased to announce the School's **online training seminars this June 2022: Introduction to R and Data Management Using the Tidyverse Ecosystem (15-17 June) and Basic Statistics with Exploratory Data Analysis (22-24 June), 9:00am to 12:00nn; 1:30 to 4:30pm.**
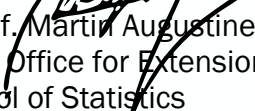
The two modules aim to equip participants with the basics in using R, one of the most popular platforms in doing statistical analysis, and to provide them with the foundation in understanding Statistics. Details of the training seminars are also attached in this letter for your reference.

Faculty members of the UP School of Statistics with wide-ranging consulting and research experience will serve as resource persons. Certificate of completion will be awarded to participants upon successful completion of a module.

The training seminar fee for each module is Php 5,000. Special rates shall be given to those **registering in both modules** or to **group registrations of at least ten (10) participants.** An email will be sent a week before the start of the training seminar to confirm the schedule of the training. This is in the event that the minimum number of participants is not reached, and the training seminar needs to be postponed to a later date. Upon receiving this confirmation, full payment shall be made at least three days before the start of the training seminar. Payments are non-refundable for NO SHOW participants. Interested individuals may register online using this link: https://bit.ly/UPSSTrainings. Payment details will be provided after accomplishing the registration form.

Thank you very much. We look forward to seeing you in one of our training seminars!

Sincerely,

Asst. Prof. Martin Augustine B. Borlongan
Director, Office for Extension Services and External Linkages
UP School of Statistics

Endorsed by:

Prof. Joseph Ryan G. Lansangan, PhD
Dean, UP School of Statistics
Executive Director, UPSCRFI

Training Module 1: Introduction to R and Data Management Using the Tidyverse Ecosystem
15 to 17 June 2022
9:00am to 12:00nn; 1:30pm to 4:30pm
Online via Zoom
Total training hours: 18 hours

Description: Doing data management tasks and applying statistical analysis are most efficiently done using a specialized software. This training module is designed to introduce the participants to one of the most commonly used platform in data management and statistical analysis: R. The experience in using R is improved and made easier by using R Studio, an integrated development environment (IDE). Participants are exposed to both Base-R concepts and to the Tidyverse ecosystem of packages.

Objectives: The training seminar aims to provide participants with the basic knowledge and skill set in using R for basic programming tasks. Furthermore, it aims to provide participants with tools in R and R Studio for importing and exporting data, wrangling data, visualizing data and generating replicable outputs.

Outline of Topics:
1. R and RStudio
2. Writing R Codes and Programs
3. Basic Objects in R
    a. Homogenous Objects in R
    b. Heterogenous Objects in R
4. Basic Programming in R
5. Using R Projects
6. Using Tidyverse Packages for:
    a. Importing and Exporting Data Sets
    b. Data Wrangling and/or Transformations
    c. Data Visualization
    d. Introduction to R Markdown

Training Module 2: Basic Statistics with Exploratory Data Analysis

22 to 24 June 2022
9:00am to 12:00nn; 1:30pm to 4:30pm
Online via Zoom
Total training hours: 18 hours

Description: This module is designed to introduce basic concepts in Statistics including methods of data collection, sampling techniques, data presentation, and summary measures. Statistical Inference is also introduced, covering estimation and hypothesis testing. Integrated into this course are Exploratory Data Analysis (EDA) techniques which provides a new way of approaching data. Participants are also trained on the use of appropriate statistics software.

Objectives: At the end of the training, participants are expected to learn the basic concepts in statistics, learn how to collect and present statistical data, learn the different sampling techniques, interpret summary measures, perform estimation and hypotheses testing and do exploratory data analysis.

Outline of Topics:
1. Introduction to Statistics
   a. Definition of Statistics
   b. Basic Concepts
2. Collection of Data
   a. Data Collection Techniques
   b. Types of Questionnaires
   c. Guidelines in Questionnaire Construction
3. Sampling Techniques
   a. Census vs Sample Survey
   b. Sampling vs Non-sampling Errors
   c. Probability and Non-probability sampling
4. Descriptive Statistics: Presentation of Tables and Construction of Graphs
5. Descriptive Statistics: Computation of Summary Measures
   a. Measures of Central Tendency
   b. Measures of Location
   c. Measures of Dispersion
   d. Measures of Skewness and Kurtosis
6. Exploratory Data Analysis
   a. Main Themes of EDA
   b. Boxplots

7. Descriptive Statistics Using Jamovi
8. Inferential Statistics: Point Estimation
9. Inferential Statistics: Interval Estimation with Applications in Jamovi
    a. Confidence Interval Estimators for the Population Mean
    b. Confidence Interval Estimator for the Population Proportion
    c. Confidence Interval Estimator for the Difference between Two Population Means
10. Inferential Statistics: Hypothesis Testing with Applications in Jamovi
    a. Elements of Hypothesis Testing
    b. Tests Concerning the Population Mean
    c. Test Concerning the Population Proportion
    d. Tests Concerning the Difference between Two Population Means
    e. Test Concerning the Independence between Two Categorical Variables