



2-DAY INTENSIVE STATISTICAL ANALYSIS AND HANDS ON FOR RESEARCH DATA

Synopsis

The "2-Day Intensive Statistical Analysis and Hands-On for Research Data" course is a comprehensive and hands-on training program that improves statistical analysis abilities on research data.

Day 1:

The program begins with statistical analysis principles. Descriptive statistics, probability distributions, and hypothesis testing will be covered. Participants will learn statistical methods to summarize and analyse data through interactive lectures and demonstrations. Sampling, data collection, and data quality assurance will be covered in the session. Participants will learn about sample size determination and selecting statistical tests for different research objectives.

Day 2:

Participants will learn more about advanced statistical approaches and do hands-on exercises. Regression, ANOVA, and non-parametric testing will be covered. Participants will master Microsoft Excel for research data analysis through hands-on exercises and case studies.

The course will stress practical statistical analysis. Facilitators will provide participants with customized feedback during the program to ensure they understand the ideas and practices.

Learning Outcomes

- Understand the fundamental statistical principles and terminology.
- Analyse research data using proper statistical methods.
- Enhance critical thinking skills for study design and decision-making.
- Gain practical experience and self-assurance in data analysis and interpretation.

Delivery Mode

Lectures and discussions, small group interactions, and numerous hands-on activities

Duration

2 days

Target Participant

This program is highly recommended for post-graduate students and early-career researchers interested in gaining expertise in data analysis and interpretation.

Course Outline

- Introduction to Statistics
- Descriptive Statistics
- Probability Theory and Distributions
- Statistical Inference
- Design of Experiment
- Regression Analysis
- Analysis of Variance (ANOVA)
- Non-parametric Methods
- Chi-squared Test

Course Fee

RM 400.00

Instructor And Facilitator



Assoc. Prof. Dr. Law Teik Hua is a senior lecturer in the Faculty of Engineering, Universiti Putra Malaysia (UPM). He is also the director of the Road Safety Research

Centre (RSRC) at UPM. He has worked with primary and secondary research data for more than 25 years, specializing in statistical analysis. He has taught numerous courses on statistical analysis to undergraduate and postgraduate students and aspiring academics.



Assoc. Prof. Ts. Dr. Ng Choy Peng is a senior lecturer in the Faculty of Engineering, Universiti Pertahanan Nasional Malaysia (UPNM). She specializes in highway and transportation

engineering. She teaches Statistics to undergraduates and conducts statistical courses for postgraduate students at UPNM.



Ts. Dr. Jestin Jelani is a senior lecturer in the Faculty of Engineering, Universiti Pertahanan Nasional Malaysia (UPNM). She specializes in

geotechnical engineering. She teaches Statistics to undergraduate students at UPNM.



Ts. Dr. Nordila Ahmad is a senior lecturer in the Faculty of Engineering at Universiti Pertahanan Nasional Malaysia (UPNM). She specializes in water engineering. She

teaches Statistics to undergraduate students at UPNM.

Course Schedule

Time	Day 1	Day 2
0800 - 0830	Registration + Breakfast	Breakfast
0830 - 0930	Introduction to Statistics	Design of Experiment
0930 - 1030	Descriptive Statistics	
1030 - 1100	Break	Break
1100 - 1200	Probability Theory and Distributions	Regression Analysis
1200 - 1300	Statistical Inference	
1300 - 1400	Lunch	Lunch
1400 - 1500	Statistical Inference	Analysis of Variance (ANOVA)
1500 - 1600		Non-parametric Methods
		Chi-squared Test
1600 - 1630	End of Day 1	Closing + End of Day 2



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