

NUHS Medical Publications Support Unit (PSU)

SPSS & Biostatistics Workshops Programme Structure (2-day workshops)

Workshop / Module	Contents	
SPSS Basics & Research Methodologies	Day 1: SPSS Basics	Day 2: Research Methodologies
	<ul style="list-style-type: none"> - Database Setup Using SPSS - Data Cleaning & Integrity - Importing Files from Excel/Access - Merging Files - Graphs - Computing, Recoding - Syntax Files - Exercises 	<ul style="list-style-type: none"> - Form Design - Research Methodologies: <ul style="list-style-type: none"> Clinical Trials Epidemiology Studies - Sample Size Calculations - Exercises
Basic & Intermediate Biostatistics	Day 1: Basic	Day 2: Intermediate
	<ul style="list-style-type: none"> - Data Descriptive - Univariate Quantitative Analysis: Parametric vs Non-parametric - Univariate Qualitative Analysis: <ul style="list-style-type: none"> Chi-square / Fisher's Exact Test Odds Ratios / Relative Risk McNemar Test - Exercises 	<ul style="list-style-type: none"> - Correlation / Agreement - Regression Analysis: Linear / Logistic - Kaplan Meier / Cox Regression - Exercises
Advanced Biostatistics A	Day 1: Linear Mixed Models	Day 2: Repeated Measures
	<ul style="list-style-type: none"> - Linear Regression Revision - Unconditional Random-effects Models - Mixed Models - Hierarchical Models - Exercises 	<ul style="list-style-type: none"> - Paired T / McNemar Test Revision - Quantitative Repeated Measures: GLM & Mixed Models - Qualitative Repeated Measures: GEE - Exercises
Advanced Biostatistics B	Day 1: Log Linear & Logit Models	Day 2: Generalized Linear Models
	<ul style="list-style-type: none"> - Log-linear Modeling - Multinomial & Ordinal Regression - Conditional Logistic Regression - To Obtain Multivariate Relative Risk - Discriminant Analysis - Calculating Hospital Standardized Mortality Rate (HSMR) - Exercises 	<ul style="list-style-type: none"> - Fitting A Gamma Distribution To Survival Time Without Censored Observations - Exponential Models - Weighted Logistic Regression - Poisson Regression Models - Probit Regression - Exercises
Advanced Biostatistics C	Day 1: ROC Analysis	Day 2: PCA, Factor & Conjoint Analysis
	<ul style="list-style-type: none"> - Revision of Linear/Logistic Regression - Sensitivity, Specificity, ppv, npv - Optimal Cutoff Determination for Quantitative Biomarker - Developing of Risk-scoring Models - Exercises 	<ul style="list-style-type: none"> - PCA - Factor Analysis & Reliability - Conjoint Analysis - Exercises

Refresher Course on Biostatistics Using SPSS (1-day workshop)

Contents

- **Overview of Basic Biostatistics:** Quantitative & Qualitative data; Parametric vs Non-parametric Tests: Chi Square, Fisher's Exact & McNemar Tests
- **Revisit of Intermediate Biostatistics:** Multiple Linear Regression; Logistic Regression; Survival Analysis
- **Exercises:** Hands-on Practices using SPSS
- **Exercises (Continue):** Discussion of Answers

For enquiries on the workshops, please contact the Secretariat at email: psu@nuhs.edu.sg or call +65 6772 3820 (Shuyu) / +65 6772 3817 (Ren Fang).

Alternatively, you may visit the PSU website at www.nuhs.edu.sg/research/introduction/medical-publication-support-unit.html, to check out the workshops and other workshops that PSU organizes.