

SS2032: APPLIED DATA ANALYSIS AND INTERPRETATION

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Applied Data Analysis and Interpretation

Subject Code

SS - Social and Behavioural Sciences

Course Number

2032

Academic Unit

Social and Behavioural Sciences (SS)

College/School

College of Liberal Arts and Social Sciences (CH)

Course Duration

One Semester

Credit Units

3

Level

B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

SS2027 Social Statistics and Research Methods or its equivalent

Equivalent Courses

Nil

Exclusive Courses

SS3707 Design and Analysis for Psychological Research I, SS3708 Design and Analysis for Psychological Research II

Part II Course Details

Abstract

This course aims to develop an understanding of and practical skills in choosing appropriate strategies and analytic procedures to manage, analyze, present, interpret and report quantitative data collected in and arising from social research.

Course Intended Learning Outcomes (CILOs)

CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1 describe major methods in analyzing quantitative data including descriptive and inferential statistics;	20	x		
2 apply appropriate data analytic procedures for analyzing quantitative data arising from social research;	30	x	x	
3 interpret research findings critically; and	30	x	x	
4 communicate research findings in a scholarly way.	20	x	x	x

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Teaching and Learning Activities (TLAs)

TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1 TLA1: Assigned Readings	Students are required to read one to two assigned paper(s) and/or chapter(s) per week before attending each lecture.	1, 2, 3, 4	
2 TLA2: Lectures	Major theories and key concepts in managing, analyzing, presenting, interpreting and reporting data collected in and arising from social research will be explained in the scheduled lectures.	1, 2, 3, 4	

3	TLA3: Workshops	Hands-on activities on SPSS are provided to deepen students' understanding on theories and concepts explained in the lectures and to develop skills in data analysis and interpretation.	1, 2, 3	
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Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	AT1: Group paper	1, 2, 3, 4	30
2	AT2: Short assignments	1, 2, 3	20
3	AT3: In-class quiz	1, 2, 3	50

Continuous Assessment (%)

100

Examination (%)

0

Assessment Rubrics (AR)**Assessment Task**

1. Group paper

Criterion

Organisation: Refers to format and presentation: logical structure.

Accuracy: Refers to the quality of computing of statistics involved in addressing questions and issues

English writing: Grammar, spelling, sentence construction, etc.

Excellent (A+, A, A-)

An excellent paper# very good mastery of statistical concepts, with accurate computation and good presentation of results.

Good (B+, B, B-)

A solid paper with reasonably accurate computation and presentation of results.

Fair (C+, C, C-)

Efforts are mostly adequate for a passing grade, ability to show relevant steps in the computation of results.

Marginal (D)

barely a pass. Many serious flaws and shortcomings in computation of results.

Failure (F)

does not demonstrate the minimum computational effort; or substantial plagiarism

Assessment Task

2. Short assignments

Criterion

Ability to apply relevant concepts and skills related to social statistics and research methods.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

3. In-class quiz

Criterion

Scores of MCQ questions obtained.

Excellent (A+, A, A-)

75 marks or above

Good (B+, B, B-)

60 to 74 marks

Fair (C+, C, C-)

45 to 59 marks

Marginal (D)

40 to 44 marks

Failure (F)

Below 40 marks

Part III Other Information

Keyword Syllabus

Data management; presenting descriptive information; rationale and reporting of inferential statistics, type I and II errors and effective size, multivariate statistical analysis, non-parametric tests of association; data elaboration, functions and limitations of quantitative data analysis; report writing.

Reading List

Compulsory Readings

Title	
1	Zechmeister, E. B., & Posavac, E. J. (2003). Data analysis and interpretation in the behavioral sciences. Belmont: Wadsworth/Thomson Learning.

Additional Readings

	Title
1	Aaron, A., Aaron, E. N., & Coups, E. (2005). <i>Statistics for the behavioural and socialsciences: A brief guide</i> (3rd ed.). Belmont, CA: Thomson/Wadsworth.
2	American Psychological Association. (2001). <i>Publication manual of the American Psychological Association</i> (5th ed.). Washington, D.C.: American Psychological Association.
3	Babbie, E. (2012). <i>The practice of social research</i> (13th ed.). Belmont, CA: Thomson/Wadsworth.
4	Healey, J. F. (2005). <i>Statistics: A tool for social research</i> (7th ed.). Belmont, CA: Thomson/Wadsworth.
5	Jackson, S. L. (2006). <i>Research methods and statistics: A critical thinking approach</i> (2nd ed.) Belmont, CA : Thomson/Wadsworth.
6	Kendrick, J. R. (2005). <i>Social statistics: An introduction using SPSS for windows</i> (2nd ed.). Boston: Allyn and Boston.
7	Lester, J. D., & Lesteer, J. D. (2006). <i>Writing research papers in the social science</i> . Boston: Pearson/Longman.
8	Levin, J., & Fox, J. A. (2004). <i>Elementary statistics in social research: The essentials</i> . Boston: Allyn and Bacon.
9	Norusis, M. J. (2012). <i>SPSS 19.0 guide to data analysis</i> . NJ: Prentice Hall.
10	Patterson, D. A., & Basham, R. E. (2006). <i>Data analysis with spreadsheets</i> . Boston: Allyn and Bacon.
11	Szuchman, L. T. (2008). <i>Writing with style: APA style made easy</i> (4th ed.). Belmont, CA: Thomson/Wadsworth.