SS3708: DESIGN AND ANALYSIS FOR PSYCHOLOGICAL RESEARCH II

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Design and Analysis for Psychological Research II

Subject Code
SS - Social and Behavioural Sciences
Course Number
3708

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
SS3707 Design and Analysis for Psychological Research I

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract

This course aims to provide further training in research designs and quantitative methods in psychology upon completion of basic training in SS3707. Upon completion of this course students will be able to conduct a psychological research study in the real world and to report and analyse the observations in a systematic manner.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Explain and apply major inferential statistical methods appropriately for psychological investigation;	30		x	
2	Plan and implement research strategies and design in the process of observation;	20		x	
3	Organize and analyse the data arising from empirical observation; and	20		x	
4	Explain research findings in a professionally acceptable manner.	30			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.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures	Students will engage in lecture activities about pertinent concepts and statistical analysis, applying appropriate statistical procedure to analyze real-life data, reporting and evaluating research findings.	1, 2	
2	Labs	Students will participate in computer labs on data manipulation & data analysis. Students will work on real-life datasets that are generated by them.	2, 3	

3	Workshops	Students will be inspired to generate new and innovative ideas in analyzing their data, interpreting results, reporting findings, and evaluating the outcomes for their research projects.	2, 4	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Short Assignment	3	20	-	No
2	Quiz	1, 2	40	-	No
3	Research Report (group)	3, 4	40	Only for proof editing	Yes

Continuous Assessment (%)

100

Examination (%)

0

Assessment Rubrics (AR)

Assessment Task

1. Short Assignment

Criterion

Ability to differentiate and explain the research methods applied for different purposes

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not reaching basic levels

Assessment Task

2. Quiz

Criterion

ABILITY to explain and EXECUTE statistical analyses

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not reaching basic levels

Assessment Task
3. Research Report (group)

Criterion
ABILITY to USE computer for data analysis and to EXECUTE the research in action and to COMMUNICATE the results in a professional manner

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not reaching basic levels

Part III Other Information

Keyword Syllabus
Introduction to multivariate analysis, data cleaning and transformation, experimental designs and ANOVA, factorial designs, repeated measures, mixed factorial designs, multiple regression, path analysis, mediation and moderation, exploratory and confirmatory factor analysis, structural equation modeling

Reading List

Compulsory Readings

	Title
1	Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Upper Saddle River, NJ: Prentice Hall.

2	Gravetter, F. J., Wallnau, L. B., Forzano, L. A. B., & Witnauer, J. E. (2020). Essentials of Statistics for the Behavioral Sciences (10th edition). Cengage Learning.
3	George, D., & Mallery, P. (2019). IBM SPSS statistics 26 step by step: A simple guide and reference. Routledge.
4	Kline, R. B. (2005). Principles and Practice of Structural Equation Modeling (2nd ed.). Guilford Press.
5	Tabachnick, B. G., & Fidell, L. S. (2007). Using Multivariate Statistics (5th ed.). Pearson/Allyn and Bacon.

Additional Readings

	Title
1	American Psychological Association. (2020). Publication manual of the American Psychological Association. American Psychological Association.
2	Banister, P. et al. (1994) Qualitative Methods in Psychology: a research guide. Buckingham: Open University Press.
3	Breakwell, G.M., Hammond, S. and Fife-schaw C. (Eds.) (2000). Research Methods in Psychology. London: Sage.
4	Cardinal, R., & Aitken, M. (2006). ANOVA for the Behavioural Sciences Researchers. Lawrence Erlbaum.
5	Christensen, L.B. (2007). Experimental Methodology. Boston: Allyn & Bacon.
6	Coolican, H. (2017). Research methods and statistics in psychology. Psychology Press.
7	Corbin, J. & Strauss, A. (2008). Basics of Qualitative Research: Techniques and procedures for developing grounded theory. LA: Sage.
8	Gravetter, F., & Forzano, L.B. (2019). Research Methods for the Behavioral Science (6th edition). Cengage Learning.
9	Langdridge, D., & Hagger-Johnson, G. (2009). Introduction to Research Methods and Data Analysis in Psychology. Pearson.
10	Levin, J., & Fox, J.A. (2011). Elementary Statistics in Social Research: the essentials. Boston: Allyn and Bacon.
11	Norusis, M. J. (2012). IBM SPSS19 Guide to Data Analysis. NJ: Prentice Hall.