SS3707: DESIGN AND ANALYSIS FOR PSYCHOLOGICAL RESEARCH I

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Design and Analysis for Psychological Research I

Subject Code
SS - Social and Behavioural Sciences
Course Number
3707

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
SS1101 Basic Psychology or SS2023 Basic Psychology I; and SS2028 Basic Psychology II; and SS2033 Research Methods for Behavioural Sciences or SS2027 Social Statistics and Research Methods

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
SS3421 Applied Data Analysis and Interpretation for the Social Sciences or SS2032 Applied Data Analysis and Interpretation

Part II Course Details

Abstract

This course aims to provide essential training in research designs and quantitative methods commonly employed in psychology. Upon completion of the course students should be able to plan a psychological research study which is feasible and relevant for operation and to conduct simple quantitative analysis.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Explain major theories and principles of research methodology in psychology;	25		x	
2	Justify and apply appropriate research designs and statistical methods in the investigations of human behaviour;	25	x	x	
3	Demonstrate basic computations on behavioural data by hand and analyse them with the help of a computer; and	25		x	
4	Organize, synthesize, and differentiate the research literature for the planning of an investigation in an area of psychology.	25			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 practices in research methodology and statistical analysis.	1, 2, 3	

2	Labs	Students will participate in computer labs to gain practical hands-on training in data manipulation and data analysis using SPSS. Students will generate their own dataset and work on it during the Labs.	2, 3	
3	Workshops	Students will prepare their group project and participate in project consultation. Students will be inspired to generate creative ideas in proposing a psychological research project.	2, 4	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Quiz	1, 2, 3	50	-	No
2	Project Writing	2, 4	40	-	No
3	Laboratory / Project Participation	4	10	AI may not be allowed for some lab activities, as they are considered summative assessment.	Yes

Continuous Assessment (%)

100

Examination (%)

0

Assessment Rubrics (AR)

Assessment Task

1. 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
2. Project writing

Criterion
ABILITY to CONSTRUCT a systematic literature review and to DEVELOP a research proposal

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. Lab / project participation

Criterion
Positive ATTITUDE in engaging in inquiry and in collaborating with project members

Excellent (A+, A, A-)
Highly positive and fully engaged

Good (B+, B, B-)
Positive and engaged

Fair (C+, C, C-)
Moderately positive and engaged

Marginal (D)
Rather detached but showed some efforts to engage

Failure (F)
Detached and no efforts to engage

Part III Other Information

Keyword Syllabus

experimental and non-experimental designs, basic statistics, inferential statistics, samples and population, estimation of population means, significance tests of difference between means, correlation and regression, non-parametric tests of categorical data, power and effect size, SPSS.

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
1	Coolican, H. (2009). Research methods and statistics in psychology. London: Hodder & Stoughton.
2	Gravetter, F., & Wallnau, L. (2013). Statistics for the behavioral sciences. NY: Thompson.
3	Norusis, M. J. (2012). IBM SPSS statistics 19 guide to data analysis. NJ: Prentice Hall.
4	http://www.socialresearchmethods.net/
5	http://davidmlane.com/hyperstat/index.html
6	http://www.wadsworth.com/psychology_d/templates/student_resources/workshops/workshops.html
7	http://www.statsoft.com/textbook/stathome.html
8	http://www.apastyle.org/
9	http://www.apastyle.org/elecref.html