THE UNIVERSITY OF HONG KONG
FACULTY OF SOCIAL SCIECNES
Department of Psychology

COURSE OUTLINE (2025/2026, SEMESTER TWO)

1. Basic Course Information

Course Code	PSYC7302
Course Title	Research & Quantitative Methods in Psychology
Course Credits	6
Lecture Time & Venue	Friday, 3:00 – 4:50 pm, CPD 3.41
Tutorial Time & Venue	Friday 5:00 – 5:50 pm, CPD 3.41

2. Course Instructor / Course Co-ordinator

Name	Office	Phone	E-mail	Consultation Hour (if any)
Dr. Yuanwei Yao (Instructor)	6.04, JCT	39175096	ywyao@hku.hk	By appointment
Ms. Wendy Lau (Tutor)	6.13, JCT	39178226	wlau049@hku.hk	By appointment

3. Course Description

This course is designed to extend students' quantitative and research skills so that they are prepared to conduct their own independent empirical research. It will build on what students already learned in PSYC7301 to cover more advanced quantitative methods commonly used in Psychology.

4. Course Learning Outcomes

On completing the course, students will be able to:

a. read, understand, and evaluate methods and statistical analyses reported in published research.
b. select and execute suitable statistical analyses in tackling research questions.
c. interpret and report results of advanced statistical analyses.
d. synthesize materials (derive a hypothesis, measures of testing, and proposed analyses, and discuss practical implications of the research) in a concise, written form.

5. Course Contents and Topics

Topics covered in this course include: confidence interval, bias in statistics, multiple regression, moderation and mediation analysis, and ANOVA.

6. Assessment Methods and Weighting

Assessment methods	Weighting in final course grade (%)
Individual assignments (15% each)	30
Group presentation	30
Final test	40
Total	**100**

Assessment Ratio: 100 % Coursework

7. Required/Recommended Readings & Online Materials

Textbook: DS

- Field, A. (2018). Discovering Statistics Using IBM SPSS Statistics (5th Edition). London: Sage.

Reference book

- A free Jamovi Textbook: https://davidfoxcroft.github.io/lsj-book/

8. Marking scale

Grading will be based on the following table:

Marks (out of 100%)	Grade	Grade Point
95 or above	A+	4.3
90 – 94	A	4.0
85 – 89	A-	3.7
82 – 84	B+	3.3
78 – 81	B	3.0
75 – 77	B-	2.7
72 – 74	C+	2.3
68 – 61	C	2.0
65 – 67	C-	1.7
61 – 54	D+	1.3
55 – 60	D	1.0
less than 55	F	0.0

9. Feedback Policy

This may not be an easy course for some students. We will try to give the best content to you without making you panic. Some students with a math or science background may find the course progress being too slow, which is absolutely fine. Feel free to talk to Yuanwei or Wendy if you are a fast learner and want to learn advanced content. If you have difficulties picking up math and statistics, please talk to us too.

10. Important Notes

- **Academic Honesty:** Academic dishonesty will not be tolerated. Any student who engages in any form of academic dishonesty (e.g., cheating on exams, plagiarism, self-plagiarism, interfering with grading, falsification and fabrication of data in any academic exercise etc.) will receive a grade of F on the component(s) of assessment concerned or in this course and will be reported to the Department/Faculty Office/University Disciplinary Committee for further disciplinary action. There will be no exceptions. If you are not sure what constitutes the academic offense of plagiarism, checkout the webpage at https://tl.hku.hk/plagiarism/. Department of Psychology has formulated departmental polies/guidelines on student misconduct.

- **Plagiarism:** A hardcopy and a softcopy are required for all written assignments. The softcopy will be checked for plagiarism against a database of articles, books, webpages, and essays submitted by students at HKU and other universities. No credit will be given for an assignment that contains plagiarized materials. Further penalties will also be applied. These penalties include

a zero mark for participation in course tutorials and a zero mark for the course. Plagiarism will also be reported to Department/Faculty Office/University Disciplinary Committee for consideration of possible disciplinary action.

Although you are encouraged to share your views and course-relevant resources with your classmates, NEVER show them any of your own written work (drafts or completed assignments). Things other people wrote (whether published or unpublished) may be used in your assignments only with proper acknowledgement and referencing. Neither may you use materials submitted for another course without proper acknowledgement (This is called self-plagiarism).

- **Late submission**: All late submissions of written assignments will be subject to mark deduction (20% per calendar day), unless a doctor's certificate (original copy) in support of the lateness is submitted to the tutor before the due date or within one week after (seven calendar days). No assignments will be accepted 5 days after the submission date. If you have medical reasons you MUST contact the teaching team BEFORE the assignment is due and provide a medical certificate. Application for assignment extension will NOT be accepted if the teaching team is not informed before the assignment due date.

11. Course Schedule

Week	Date	Lecture Topics	Tutorial Topics	Readings	Assignment due
1.	23 Jan	Course overview, basic concepts, and research designs		DS Ch. 3, 6	
2.	30 Jan	Partial correlation Multiple regression – Part 1	T1 – Basic concepts & group formation	DS Ch. 8, 9	
3.	6 Feb	Multiple regression – Part 2	T2 – Correlation	DS Ch. 9	
4.	13 Feb	Moderation analysis	T3 – Multiple regression	DS Ch. 11	
-	20 Feb	*Holiday*			
5.	27 Feb	Mediation analysis	T4 – Moderation analysis	DS Ch. 11	Assignment 1
6.	6 Mar	Between-subjects ANOVA	T5 – Mediation analysis	DS Ch. 14	
-	13 Mar	*Reading week*			
7.	20 Mar	Repeated-measures ANOVA	T6 – Between-subjects ANOVA	DS Ch. 15	
8.	27 Mar	**Group presentation**	**Group presentation**		
-	3 Apr	*Holiday*			
9.	10 Apr	Mixed ANOVA and non-parametric analysis	T7 – Repeated-measures ANOVA	DS Ch. 16, 7	Assignment 2
10.	17 Apr	Final review	Mock test		
11.	24 Apr	**Final exam**			
-	1 May	*Holiday*			