

The Hong Kong University of Science and Technology

UG Course Syllabus Template

Course title: Research Methods in Psychological Science

Course code: SOSC1990

Credits: 3

No pre-requisites

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Course Description

This course introduces students to the basic research principles in psychological science. It evaluates various research designs and statistical analyses, and discusses relevant ethical issues encountered in studying human behaviors.

Intended Learning Outcomes (ILOs)

By the end of this course, students should be able to:

1. recognize the basic research principles in psychological science
2. evaluate various research designs and statistical analyses commonly used in research on psychological science
3. demonstrate the ability to apply the professional ethics in conducting research and practice of psychological science
4. demonstrate skills of scientific reasoning, effective research methods, and problem solving
5. demonstrate the ability to critically read, summarize, interpret, and evaluate information regarding behavioral phenomena and social issues
6. demonstrate the ability to present, discuss, and explain knowledge about psychological science with clarity in both oral and written forms

Assessment and Grading

This course will be assessed using criterion-referencing and grades will not be assigned using a curve. Detailed rubrics for each assignment are provided below, outlining the criteria used for evaluation.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)	Due date
In-Class Participation	10%	28/11/2024
Individual Assignments Research Ethics Scaling and Measurement	30%	27/9/2024* 8/11/2024
Mid-term Quiz	30%	3/10/2024
Group Project Research Proposal Presentation Peer Evaluations	30%	28/10/2024 28/11/2024 3/12/2024

*Assessment marks for individual assessed tasks will be released within two-four weeks of the due date.

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped ILOs	Explanation
In-Class Participation	[ILO1, ILO2, ILO3, ILO4, ILO5]	This task assesses students' ability to explain the principles and apply practices of psychological research (ILO1, ILO2), including applying ethics (ILO3), critical thinking (ILO4, IOL5).
Individual Assignments Research Ethics Scaling and Measurement	[ILO1, ILO2, ILO3, ILO4, ILO5, ILO6]	This task assesses students' ability to explain the principles and apply practices of psychological research (ILO1, ILO2), including applying ethics (ILO3), critical thinking (ILO4, IOL5), and effective communication skills to investigate behavioral phenomena, interpret findings, and present psychological knowledge (ILO6).
Mid-term Quiz	[ILO1, ILO2, ILO3, ILO4, ILO5, ILO6]	This task assesses students' ability to explain the principles and apply practices of psychological research (ILO1, ILO2), including applying ethics (ILO3), critical thinking (ILO4, IOL5), and effective communication skills to investigate behavioral phenomena, interpret findings, and present psychological knowledge (ILO6).
Group Project Research Proposal Presentation Peer Evaluations	[ILO1, ILO2, ILO3, ILO4, ILO5, ILO6]	This task assesses students' ability to explain the principles and apply practices of psychological research (ILO1, ILO2), including applying ethics (ILO3), critical thinking (ILO4, IOL5), and effective communication skills to investigate behavioral phenomena, interpret findings, and present psychological knowledge (ILO6).

Assessment overview

1. In-Class Participation (10% +2% bonus points)

In-class participation is evaluated based on two ways:

- Throughout the semester, there will be attendance taking. The attendance will be conducted through a variety of in-class activities including but not limited to pop-up mini-quizzes and group discussions. Each attendance counts for 1% of your final score, which accumulated to 10% in total.
- Additionally, you can earn up to 2 bonus points through active participation including but not limited to answering questions, getting involved in on-stage demonstrations, each of these experiences will count as one point.

2. Individual Assignments (30%)

There are two individual assignments: Research Ethics (15%) + Scaling and Measurement (15%). Each assignment will be posted at least two weeks before the deadline. The first assignment is due at **noon 27 September**, and the second assignment is due at **noon 8 November**. Guidelines of the assignments will be distributed on Canvas in due course.

3. Mid-term quiz (30%)

- A Mid-term quiz will be administered to test your understanding of course materials. Exams are multiple-choice and True/False questions. The quiz covers all materials taught in Week1 -Week4.
- Midterm quiz is scheduled on **Oct 3**.
- Arrive on time for the exams as no additional time will be given for students arriving late.
- No make-up exams will be given to students who are absent from the examination unless students can provide validated medical reasons. You should notify the instructor (through email) about your absence by attaching your official medical certificate within 24 hours of the original exam date if you wish to arrange for a make-up exam. All make-up exams will **ONLY** be in the form of essays and oral questions.

4. Group Project (30%)

You will be assigned into a team of 5-7 people to conduct a research study. The research topic will be randomly assigned to groups on 26 Sep. Your group will use either survey or experimental design to conduct a psychological study by collecting data on HKUST students. Evaluations will be separated into two sections: *Research Proposal* and *Group Presentation*.

Research Proposal (10%):

Lit Review (5%): Your group will review previous psychological studies and complete a Lit Review Report based on the assigned research topic.

Research Question (5%): Based on the literature review, your group needs to formulate a research hypothesis(es) and to propose a research design to test your hypothesis(es).

Group Presentation (20%)

Project PPT (10%): The content will be evaluated based on the quality of content in three study sections: Method, Results, and Discussion. Two points will be deducted if the submission of the group PPT on CANVAS is not on time (5PM on 18 November, no grace period is allowed).

Presentation (10%): Presentation will be evaluated on the content, presentation skills, coherence, and performance in Q&A sessions. Detailed guidelines will be provided in due course.

Peer evaluation:

Contributions of group members will be evaluated towards the completion of the project using iPeer. Each person's individual grade in Group Project will be adjusted based on the peer evaluations.

Final Grade Descriptors:

Grades	Short Description	Elaboration on subject grading description
A	Excellent Performance	Demonstrates a comprehensive grasp of subject matter, expertise in problem-solving, and significant creativity in thinking. Exhibits a high capacity for scholarship and collaboration, going beyond core requirements to achieve learning goals.
B	Good Performance	Shows good knowledge and understanding of the main subject matter, competence in problem-solving, and the ability to analyze and evaluate issues. Displays high motivation to learn and the ability to work effectively with others.
C	Satisfactory Performance	Possesses adequate knowledge of core subject matter, competence in dealing with familiar problems, and some capacity for analysis and critical thinking. Shows persistence and effort to achieve broadly defined learning goals.
D	Marginal Pass	Has threshold knowledge of core subject matter, potential to achieve key professional skills, and the ability to make basic judgments. Benefits from the course and has the potential to develop in the discipline.
F	Fail	Demonstrates insufficient understanding of the subject matter and lacks the necessary problem-solving skills. Shows limited ability to think critically or analytically and exhibits minimal effort towards achieving learning goals. Does not meet the threshold requirements for professional practice or development in the discipline.

Course AI Policy

Restrict ways of using generative AI tools for assessment

Communication and Feedback

Assessment marks for individual assessed tasks will be communicated via Canvas within two-four weeks of submission. Students who have further questions about the feedback including marks should consult the instructor or TA within five working days after the feedback is received.

Suggested Texts

Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2015). Research methods in psychology (10th ed.). New York: McGraw-Hill.

Academic Integrity

Students are expected to adhere to the university's academic integrity policy. Students are expected to uphold HKUST's Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to [Academic Integrity | HKUST – Academic Registry](#) for the University's definition of plagiarism and ways to avoid cheating and plagiarism.

Course Communication Platform

All lecture materials and announcements will be posted on CANVAS. Be sure to check CANVAS from time to time for any updated news. Interaction between the lecturer and the students is one of the key ingredients to an optimal learning experience. You can share any thoughts relevant to the course by email. These can be things you come across in your everyday life which are related to what you have learned in class.

Other Notes

- **Interaction in class** – I believe interactions (both verbal and non-verbal) between the lecturer and the students (and among students) are one of the key ingredients to an optimal learning experience. Your active participation in class discussion or activities will not only enhance your learning, but also motivate the teaching team to do better! Stay behind the class and share with me your thoughts about the course contents.
- **Lecture slides** – Lecture slides will be posted to CANVAS before each class, but the contents will be a bit different from the displayed slides as I hope to encourage you to take your own notes. Note-taking facilitates your reflection and assimilation of the lecture contents.
- **Penalties** – Score deduction applies to any assignments over the word limit. Details can be found in the assignment guidelines.
- **Late submission** – For any group assignment, the group leader will do the submission. Submissions received less than 5 hours after the deadline will not be penalized. No submissions will be accepted after 5pm HKT on the due date.
- **Communication** – Please expect that your emails will be responded to during weekdays 10 am to 5 pm HKT.
- **Feedback** – Your opinions about the course are very valuable to improving the course. A course evaluation will be held at the end of the course. You are also very much welcome to talk to the teaching team.

Teaching Schedule

Week	Date	Topic
1.	Sep 3	Introduction
	Sep 5	Research Questions and Hypotheses Formulation
2.	Sep 10	Research Ethics
	Sep 12	
3.	Sep 17	<i>Understanding psychological research: What do Psychologists do?</i>
	Sep 19	Psychological Measurement
4.	Sep 24	Qualitative Research Methods
	Sep 26	<i>Workshop: Conducting Literature Search</i>
5.	Oct 1	<i>The National Day (no class)</i>
	Oct 3	Survey
6.	Oct 8	
	Oct 10	Experimental Designs
7.	Oct 15	
	Oct 17	
8.	Oct 22	Mid-term Review
	Oct 24	Mid-term Quiz
9.	Oct 29	Group Project Consultations
	Oct 31	
10.	Nov 5	Group Project Data Collection
	Nov 7	
11.	Nov 12	Descriptive & Inferential Statistics
	Nov 14	
12.	Nov 19	Group Project and Q & A Sessions
	Nov 21	
13.	Nov 26	
	Nov 28	

Important dates

Date	Task due
17 September	Finalized Group List
27 September	Assignment 1
3 October	Mid-term
28 October	Group Project Proposal
8 November	Assignment 2
18 November	Group Project PPT
3 December	Peer Evaluations