The Hong Kong University of Science and Technology

UG Course Syllabus

SOSC1990 Research Methods in Psychological Science (Fall 2026) – L1

3 Credits; No pre-requisites

The Teaching Team

Instructor: Annie Shu (annieshu@ust.hk)

Teaching Assistants: KaYee Wong (egkayee@ust.hk); Vivien Pong (vivienpong@ust.hk)

Office Hours: By appointment

*When contacting us by email, please ***prefix the subject line*** of your message with the course code [SOSC1990 – L1]. Use your university email account only. Do NOT leave your messages in the Canvas inbox.

Lecture Time: **Tue 09:00– 10:20**
Venue: **6580**

***Lecture will NOT be recorded.**

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; AND
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.

Summary

Assessment Task	Contribution to Overall Course grade (%)	Due Date
In-Class Participation	10%	---
Online Learning Assessment	10%	26/10/2026
Quiz	25%	27/10/2026
Group Research Project		
○ Research Proposal	10%	30/9/2026
○ Presentation	20%	23/11/2026
○ Research Report	25%	2/12/2026

In-Class Participation

- You are strongly encouraged to participate actively in activities and group discussions in the face-to-face class sessions. The activities or discussions will be related to the course contents that appeared on the online learning materials. Your contributions will be recorded in every F2F session.

Online Learning Assessment

- Online videos are designed to facilitate your learning on the key concepts of this course. Be sure to complete every online module and the revision questions. The revision questions are designed to reinforce your understanding of the key concepts, to monitor your progress, and to provide timely feedback to guide your learning across the blended learning components.
- The completion of the online modules is essential to your learning and assessment in this course. Make sure you watch the video and complete the revision question every week before the F2F class. The online videos will be taken down after the course quiz (i.e., after Oct 27). The deadline for completing all video quizzes is Oct 26, 23:59 HKT. No make up will be given after the deadline.

Quiz

- A close-book and close-note quiz will be administered to test your understanding of course materials. Items include multiple-choice and true/false questions. Topics include contents from the online videos and class discussions covering from Introduction to Experimental Design.
- Recommended readings are listed in the lecture slides, but they will NOT be included in the quiz. These readings are useful for a deeper understanding of the course contents.
- Please arrive on time for the quiz as no additional time will be given for students arriving late.
- No make-up quizzes will be given to students who are absent from the examination unless students can provide validated medical reasons. You should notify the teaching team (through email) about your absence by attaching your official medical certificate ***within 24 hours of the original quiz date*** if you wish to arrange for a make-up quiz. All make-up quizzes will ONLY be in the form of essay questions.

Group Research Project

- In a group of 5 students, you will **either conduct an experimental study or a survey study** on psychological topics by **collecting data from HKUST students as the participants**. The research topic will be randomly drawn by the teaching team.
- You can form a group of 3 students, then we will randomly assign 2 more students to your group. You should submit your group list by Sep 15. We will finalize the group list on Canvas after the add/drop period.
- All group members should attend and discuss with the teaching team your project in the two consultation sessions (Oct 6 and Nov 3). Attendance of the consultation and presentation sessions are required. 1% out of the total score will be deducted for absence from each of these sessions.
- The grading components of the project are as follows:
  a) ***Research proposal (10%)***: You will review previous psychological studies and complete a literature review based on the assigned research topic. Based on the literature, your group needs to formulate a research hypothesis and to propose a research design to test your hypothesis.
  b) ***Presentation (20%)***: Presentations will be evaluated on the contents of the PPT slides (including the sections of Method, Results, and Discussion), presentation skills, and operation among group

members. Detailed guidelines will be provided in due course.

c) ***Research Report (25%)***: The report will be evaluated based on the quality of contents in the following sections: Introduction (literature review), Method, Results and Discussion. **The word count should not exceed 1200 words**. Graphs and tables are recommended to be used to illustrate the results and findings.

d) **Peer Evaluation**: To maintain fairness of contribution, each student will anonymously evaluate the contribution of their groupmates through the FeedbackFruits system. We will undergo random checking of the peer evaluation rating. The group project score will be substantially adjusted if any suspected case of unequal contribution of individual members is confirmed. Evaluation will be based on the following criteria on a 10-point Likert scale (from 1 = very unsatisfied to 10 = very satisfied):
   - Competence: Good analytical thinking or judgment
   - Communication Proficiency: 1) Contribute to effective group coordination or logistics; 2) Enhance effective idea exchange.
   - Devotion: 1) Devoted to the project throughout the process; 2) Take responsibility in an active manner
   - Cooperation: 1) Good team player; 2) Provide support to other group members
   - Punctuality: 1) Turn in individual part of the work on time; 2) Attend meetings on time
   - Quality: Individual part of work is with good quality

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped ILOs	Explanation
In-Class Participation Online Learning Assessment	ILO1, ILO2, ILO3, ILO4, ILO5	These tasks assess students' ability to explain the principles and apply practices of psychological research (ILO1, ILO2), including applying ethics (ILO3) and critical thinking (ILO4, IOL5).
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 Research Report	ILO1, ILO2, ILO3, ILO4, ILO5, ILO6	These tasks assess 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).

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

Use of GenAI in project and individual paper is permitted. Students have to sign a declaration and include the prompts requested.

Communication and Feedback

Assessment marks for individual assessed tasks will be communicated via Canvas within four weeks of submission. Feedback on assignments will include comments on strengths and areas for improvement. Students who have further questions about the feedback including marks should consult the instructor or TAs within 5 working days after the feedback is received.

Assignment Submission Policy

1. *Video quizzes* – The Video quizzes will be closed after Oct 26, 23:59 HKT. NO submission will be accepted after the deadline.
2. *In-class activities* – The worksheet must be completed and submitted during class. NO submission will be accepted after class (10:30 HKT).
3. *Group Project* – Late submission policy is stated as follows:

- ***Grace-period***: A 5-hour grace period after the deadline applies to all submissions. Submissions received less than 5 hours after the deadline will NOT be penalized. Score deduction policy will be as follows:
    - A 50% score deduction off the assigned score: Any submission later than 5 hours to 24 hours from the due date
    - A 100% score deduction off the assigned score: Any submission later than 24 hours to 48 hours

from the due date
    - NO acceptance: Any submission later than 48 hours from the due date
    - All these policies will be strictly enforced. NO exception will be made
    - To ensure that your efforts are reflected in the course grade, please make sure to do any submission on time.

- ***File format***: Only the submitted file will be graded, even if you claim to have submitted a wrong file, a wrong assignment, an incomplete assignment, or a corrupted file. It is your responsibility to make sure that your submitted file is correct and free of problems. Please check carefully of your submitted files on Canvas.

- ***Word limit:*** Score deduction applies to any submission over the word limit. Details can be found in the assignment guidelines.

Recommended Texts and Materials

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.

Other Notes

Interaction in Class

I believe interactions (both verbal and non-verbal) between the teaching team and the students (and among students) are one of the key ingredients to an optimal learning experience. Your active participations in class discussions 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 slightly different from the displayed slides. I hope to encourage you to take your notes. Note-taking facilitates your reflection and assimilation of the lecture contents.

Communication

Expect that your emails will be responded to during weekdays 10 am to 6 pm HKT. Do NOT inbox your message on Canvas.

Teaching Schedule

Week	Date	Learning Mode	Topic
1	-	Online	Introduction
	Sep 1	F2F	
2	-	Online	Research Questions and Hypotheses Formulation Research Ethics
	Sep 8	F2F	
3	-	Online	Psychological Measurement
	Sep 15	F2F	
4	-	Online	Conducting Literature Search *Workshop I*
	Sep 22	F2F	
5	-	Online	Qualitative Research Methods
	Sep 29	F2F	*Class Break*
6	-	Online	Group Project Discussion – Project Proposal
	Oct 6	F2F	Group Project Consultation I
7	-	Online	Survey
	Oct 13	F2F	
8	-	Online	Experimental Design
	Oct 20	F2F	
9	-	-	Group Project Discussion
	Oct 27	**F2F**	**Quiz**
10	-	Online	Descriptive and Inferential Statistics
	Nov 3	F2F	Group Project Consultation II
11	-	-	Group Project Data Collection
	Nov 10	F2F	Group Project Discussion
12	-	-	Group Project Data Collection
	Nov 17	F2F	*Workshop II*
13	-	-	Group Project Finalization
	Nov 24	**F2F**	**Group Project Presentation**

Important Dates

Date	Submission
Sep 15	Group List
Sep 30	Group Project Proposal
Nov 23	Group Project Presentation PPT
Dec 2	Research Report
Dec 4	Peer Evaluation