

The Hong Kong University of Science and Technology
UG Course Syllabus

SOSC 1050: Introduction to Social Science Research (Fall 2026)

3 Credits

Pre-requisites: None

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Class Meeting Time: Tuesday and Thursday, 15:00-16:20

Office Hours: Tuesday, 16:30-18:30, Room 3149, Lift 3

Teaching Assistants:

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Course Description

This course presents a broad introduction to standard practice in social analysis by introducing a series of concepts that will serve as the basis for greater understanding in later courses. The course also showcases how such techniques are applied in modern social analysis. Throughout the lecture material, important classic and modern examples of published research will be used to illustrate applications of the topics. Where appropriate, differences in norms and practices between the major social science disciplines will be highlighted and discussed. Strengths and limitations of quantitative approaches to social analysis will be highlighted throughout the course. Students will demonstrate their facility with the concepts introduced in the course through class participation and original writing assignments.

Intended Learning Outcomes (ILOs)

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

1. Understand the types of research questions and social phenomena that are able to be addressed using standard social science research techniques
2. Understand the process and components of social science research, including how to (1) formulate research questions, (2) develop theories, (3) come up with appropriate research designs, (4) collect data, and (5) analyze collected data.
3. Identify exemplary studies that have advanced our current understanding of important social phenomena.
4. Apply their understanding of best practices in social analysis to new problems and questions.

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
Development of a Research Question	20%	Thursday, October 9 by 14:59
Annotated Bibliography	25%	Thursday, November 6 by 14:59
Research Design Paper	25%	Friday, December 11 by 23:59
Research Summary Report	15%	Throughout course

Attendance	10%	Throughout course, after drop/add
Class Participation	10%	Throughout course

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped ILOs	Explanation
Development of a Research Question	ILO1, ILO2, ILO4	On a topic of his or her choosing, each student will, in about 500 words, develop a social science research question that could potentially be addressed using empirical social science research techniques. The specific questions themselves will usually be only one or at most two sentences. The remainder of the 500 words should be used to convince the reader that the chosen topic is an interesting and important one to study. More details will be provided in class.
Annotated Bibliography	ILO1, ILO2, ILO3	On the same topic chosen for his or her research question, each student will construct an annotated bibliography consisting of about 150-200 words on each of 7-9 different sources from the scholarly literature. The 150-200 words should briefly summarize the main findings of each citation, discuss their scholarly connections, and offer appropriate critical commentary. The description should not be mere summary. More details will be provided in class.
Research summary report	ILO1, ILO2, ILO3	Students are expected to attend a minimum of two SOSC research workshops. Announcements for workshops will be made throughout the semester. For each workshop, students are expected to write a brief summary of about 200-300 words. The summary should outline the speaker's research question, their motivation, the main research design and method(s) involved, and key findings. More details will be provided in class.
		Following the submission of the Development of a Research Question assignment, students will be assigned to small groups based on shared substantive interests. In consultation with the instructor, each group will develop an original research design on

Research Design Paper	ILO1, ILO2, ILO3, ILO4	a topic of their choosing. Groups should propose a feasible research project that could be carried out in the future, using concepts and methods introduced in the course. Students are not expected to collect or analyze original data. Instead, the assignment focuses on developing a strong and coherent research design. In a group paper of approximately 4,000-5,000 words, students will identify a research question, review the relevant literature, develop a theoretical framework, propose testable hypotheses, and explain how they would use appropriate social science research methods to address the phenomenon of interest. Groups should also discuss issues of measurement, data collection, and the strengths and limitations of their proposed research design. More details will be provided in class.
Attendance		Attendance is required. Students can miss two class sessions for any reason without penalty. Any additional absences will only be excused with a valid excuse backed up by documentation.
Class Participation	ILO1, ILO2, ILO3, ILO4	After each class, the instructor will assess student contributions to discussion.

Grading Rubrics

Development of a Research Question

- Marking distinctions will be based on the following criteria:
 - A: Student provides a clear research question about a substantive problem that could potentially be studied with empirical data. This question is supported by a clear description of why the substantive problem is an important topic to study, and why it is an interesting research puzzle.
 - B: Almost all the criteria for an A grade are covered, but detail or clarity may be lacking; or some of the criteria for an A grade are not covered, but the criteria that are covered are performed at A level.
 - C: Generally only some of the criteria for an A grade are covered and improvements could be made with respect to the clarity, the argument for interestingness, and/or the argument for importance.
 - D: Assignment is performed but all of the criteria for an A grade are either missing or lacking sufficient clarity.

- F: Not enough information is presented to demonstrate understanding of the course material.

Annotated Bibliography

- Marking distinctions will be based on the following criteria:
 - A: Student identified at least different sources from the scholarly literature, summarized the main findings of each of the five sources and their connections to each other, and offered some critical commentary for each of the sources. The summary and critical commentary are performed with a high level of clarity.
 - B: Generally all the criteria for an A grade are covered, but clarity is lacking; or some of the criteria for an A grade are not covered, but the criteria that are covered are performed at A level.
 - C: Generally only some of the criteria for an A grade are covered and improvements could be made with respect to clarity of the summaries and/or critical commentary.
 - D: Assignment is performed but all of the criteria for an A grade are either missing or lacking sufficient clarity.
 - F: Not enough information is presented to demonstrate understanding of the course material.

Research summary report

- A: Student demonstrates a clear understanding of the workshop presentation by accurately identifying the research question, motivation, research design and method(s), and key findings. The summary is concise, well organized, and written in the student's own words. The student demonstrates an ability to connect the presentation to broader principles of social science research discussed in the course
- B: Generally all the criteria for an A grade are covered, but some detail, accuracy, organization, or clarity is lacking; or some of the criteria for an A grade are not fully covered, but the criteria that are covered are performed at A level.
- C: Generally only some of the criteria for an A grade are covered. The summary demonstrates a basic understanding of the presentation, but improvements could be made with respect to accuracy, completeness, organization, and/or clarity. Discussion of the research design, methods, or findings may be incomplete.
- D: Assignment is performed but all the criteria for an A grade are either missing or lacking sufficient clarity.
- F: Not enough information is presented to demonstrate understanding of the course material.

Research Design Paper

- Marking distinctions will be based on the following criteria:
 - A: Student provides a clear description of a research design that could potentially be tested with empirical data. The paper identifies a research question, provides a literature review, develops a theory, draws a hypothesis, discusses conceptualization and operationalization, describes a method for testing the relationship between variables, and critically examines the various components, including issues of internal and external validity. The writing on all components is performed with a high level of clarity.
 - B: Almost all of the criteria for an A grade are covered, but detail or clarity may be lacking; or some of the criteria for an A grade are not covered, but the criteria that are covered are performed at A level.
 - C: Generally only some of the criteria for an A grade are covered and improvements could be made with respect to the clarity of the writing on the various components.
 - D: Assignment is performed but all of the criteria for an A grade are either missing or lacking sufficient clarity.
 - F: Not enough information is presented to demonstrate understanding of the course material.

- All members of a group are expected to contribute substantially and equally to the project. The instructor reserves the right to adjust individual grades in cases where there is clear evidence of substantially unequal contributions.

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.

Late Submissions Policy

Each 6 hour of late submissions will incur a grade deduction of 10%, and the penalty will accumulate. To avoid this penalty, please submit your assignment on Canvas on time. You may attempt to submit the assignment as many times as you'd like, but only the last submission before the deadline will be considered. Any subsequent submission (for example, in case of a wrong file) will be considered late and will be graded accordingly.

Classroom Technology Policy

To promote active engagement and minimize distractions, the use of mobile phones and other handheld communication devices is prohibited during class.

- Mobile phones must be silenced and kept out of sight for the duration of the class.
- Students may not use phones for messaging, social media, web browsing, taking calls, or any other non-emergency purpose during class.
- In the event of a genuine emergency requiring phone use, the student must immediately leave the classroom before using the device.
- Students who use a phone in the classroom, including for emergency-related communications, without first leaving the room will be considered absent for that class session.

Laptop computers and tablets may be permitted for course-related purposes at the instructor's discretion.

- The instructor reserves the right to prohibit or restrict the use of laptops or tablets at any time if their use is deemed distracting, unrelated to course activities, or detrimental to the learning environment.
- Students may be asked to close or put away their devices during specific class activities.

Attendance and participation grades, where applicable, may be affected by violations of this policy.

Course AI Policy

This course is designed to develop students' ability to formulate arguments, interpret evidence, and communicate ideas independently. Generative AI may be used only in limited circumstances specified below. Unless explicitly permitted, all intellectual work submitted for assessment must be the student's own.

- **Purpose of Use:** Students may use generative AI tools only for:
 - Literature search
 - Grammar, spelling, and language editing.
 - Improving clarity, organization, and readability of prose.
 - Formatting references and checking citation style.
 - Generating simple study aids for private use (e.g., flashcards or practice questions that are not submitted for assessment).
- **Prohibited Uses:** Students may not use generative AI to:
 - Generate research questions, essay topics, thesis statements, core arguments or research designs for assessed assignments.
 - Summarize assigned readings, lectures, or course materials in lieu of completing the readings themselves.
 - Generate literature reviews, analytical frameworks, outlines, discussion sections, conclusions, or other substantive portions of assessed work.
 - Produce first drafts or substantial texts that are incorporated into a submission.
 - Generate citations, references, evidence, quotations, or empirical claims without independently verifying them against the original source.

Any AI-generated text, ideas, analyses, or arguments incorporated into an assignment without authorization will be treated as unacknowledged assistance and may constitute academic misconduct.

- **Statement on AI Use:** In all submissions, include a section titled "*Statement on AI Use*" that explains:
 - Indicate whether AI tools were used.
 - Identify the platform and model used.
 - Describe precisely how the tool was used.
 - Provide the exact prompts used.

If no AI tools were used, students should write: "No generative AI tools were used in the preparation of this assignment." Failure to disclose AI use will be treated as a *serious* violation of this course policy.

- **Documentation Requirement:** Students must retain copies of:
 - all prompts submitted to AI systems;
 - relevant AI outputs; and
 - drafts showing their own writing process.

The instructor may request these materials to verify compliance with this policy.

- **Accuracy and Integrity:** It is the student's responsibility to ensure the accuracy of all AI-generated content. Any hallucinations such as non-existent citations, fabricated data, or misrepresentation of source material will be treated as a violation of academic integrity.
- **Citation Requirements:** When citing materials, you must provide exact page numbers (or sections for online sources), not just the general work. Citations generated solely by AI tools must be independently verified against the original source before inclusion in any assignment. This

demonstrates that you have engaged in close reading of the sources.

- **Oral Verification:** The instructor reserves the right to ask students to explain, defend, or reproduce the reasoning, evidence, and writing presented in any submitted work. Inability to demonstrate sufficient understanding of submitted material may be considered evidence of unauthorized assistance.

Communication and Feedback

Assessment marks for individual assessed tasks will be communicated via Canvas within two weeks of submission. Feedback on problem sets will include comments on why any points were deducted, as well as a model answer. Feedback on presentations and final papers will include feedback about strengths and areas for improvement. Students who have further questions about the feedback including marks should consult the instructor within five working days after the feedback is received.

Required Texts and Materials

Required readings should be completed prior to the date they are listed on the schedule. All readings will be provided through Canvas, unless available as open textbooks, in which case an URL will be provided. There is no single textbook that perfectly fits the course, and therefore no purchase is required.

The course draws on three main texts:

- King, Gary, Robert O. Keohane, and Sidney Verba. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press, 1994.

Referred to as: KKV

- Bueno de Mesquita, Ethan, and Anthony Fowler. *Thinking Clearly with Data: A Guide to Quantitative Reasoning and Analysis*. Princeton University Press, 2021.

Referred to as: BA

- Bhattacharjee, Anol. *Research Methods for the Social Sciences*. Open Textbook. URL: <https://courses.lumenlearning.com/suny-hccc-research-methods/>

Referred to as: Bhattacharjee.

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.

Class Schedule, Topics, and Readings (Subject to Change with Notice by the Instructor)

Week 1: Introduction

09/01 Intro and Course Overview

09/03 What is social science research?

KKV chapter 1 (intro, 1.1, 1.2): pp 3–28

Bhattacharjee chapter 3

Week 2: Literature

09/08 Anatomy of a research project

Bertrand, Marianne, and Sendhil Mullainathan. 2004. "Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *American Economic Review* 94 (4): 991–1013.

09/10 Research as social enterprise

Geddes, Barbara. 2013. "What Causes Democratization." In *The Oxford Handbook of Political Science*, edited by Robert Goodin. Oxford: Oxford University Press

Week 3: Research Questions (continued)

09/15 Intro to research questions

09/17 Correlational and causal inferences
BA Chapter 2

Week 4: Theory

09/22 Theory and models

KKV 2.3 (pp. 49–50); Lave, Charles A., and James G. March. 1975. Introduction to Models in the Social Sciences. New York: University Press of America. (pp. 10–20, 29–34, 40–42)

09/24 What makes a good theory

KKV 1.2.2;

KKV chapter 3.4, 3.5 (pp. 97–114);

Bhattacharjee chapter 4

Week 5: Intermission

09/29 Guest lecture by SOSC Faculty

10/01 NATIONAL DAY HOLIDAY (NO CLASS)

Week 6: From Theory to Design

10/06 In-class activities: Literature search and review

10/08 Conceptualization and operationalization

Bhattacharjee chapter 6 and 7

Week 7: From Theory to Design (cont)

10/13 Levels of measurement

10/15 Reliability and validity

Munck, Gerardo L., and Jay Verkuilen. "Conceptualizing and measuring democracy:

Evaluating alternative indices." *Comparative political studies* 35, no. 1 (2002): 5-34.;

Högström, John. "Does the choice of democracy measure matter? Comparisons between the two leading democracy indices, Freedom House and Polity IV." *Government and Opposition* 48.2 (2013): 201-221.

Week 8: Potential Outcomes Framework

10/20 Data collection

10/22 Introduction to Potential Outcomes Framework

BA chapter 3 (pp. 41–53)

Week 9: The Gold Standard of Causal Inference

10/27 Threats to causal inference

BA chapter 9 (pp. 159–192)

10/29 Randomized experiments

BA chapter 11 (pp. 218–236)

Week 10: Non-Randomized Designs

11/03 Non-randomized designs: Qualitative

KKV chapter 6 (pp. 208–230);

Panke, Diana. 2018. "How to Select Cases." In *Research Design & Method Selection: Making Good Choices in the Social Sciences*. London: SAGE Publications Ltd. (pp. 1–36)

11/05 Non-randomized designs: Quantitative (Difference-in-differences, matching, regression)

BA chapters 11–13 (pp. 237–289)

Card, David, and Alan B. Krueger. 2000. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Reply." *American Economic Review* 90 (5): 1397–1420.

Week 11: Analysis

11/10 Hypothesis testing and statistical modeling

Learning Statistics with R, chapter 11 (from beginning to 11.6);

Jones, Kelvyn. 2012. "Introduction to Statistical Modelling." In *Theory and Methods in Social Research*, edited by Bridget Somekh and Cathy Lewin, 241–247. New York: Sage.

11/12 Ethics and Reproducibility

Davidson, Paul. 2024. "Will AI Help or Hurt Workers' Income, Productivity?" *Wall Street Journal*, August 19. <https://www.wsj.com/economy/will-ai-help-hurt-workers-income-productivity-5928a389>.

The Economist. 2026. "What the Failure of a Superstar Student Reveals about Economics."

The Economist, May 22. <https://www.economist.com/finance-and-economics/2026/05/22/what-the-failure-of-a-superstar-student-reveals-about-economics>.

New York Times. 2014 "Professors' Research Project Stirs Political Outrage in Montana."

Oct 28. <https://www.nytimes.com/2014/10/29/upshot/professors-research-project-stirs-political-outrage-in-montana.html>

Week 12: Research Spotlights

11/17 Research spotlights: The Replication Crisis

Open Science Collaboration. 2015. "Estimating the Reproducibility of Psychological Science." *Science* 349(6251): <https://www.science.org/doi/10.1126/science.aac4716>.

11/19 Research spotlights: Survey experiments

Malesky, E.J., Gueorguiev, D.D. and Jensen, N.M. 2015, "Monopoly Money: Foreign Investment and Bribery in Vietnam, a Survey Experiment." *American Journal of Political Science*, 59: 419-439. <https://doi.org/10.1111/ajps.12126>

Week 13: Final paper workshops

11/24: Final paper workshops

11/26: Final paper workshops