SOSC 1050: Introduction to Social Science Research (Spring 2025)
3 Credits
Pre-requisites: None

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Class Meeting Time: Monday and Wednesday, 12:00-13:20 (or by appointment)
Office Hours: Tuesdays and Thursdays, 12:00-13:00 (or by appointment)
Teaching Assistants: HO Pat Shu (Roy), psrho@ust.hk; LI Jiajun, jiajun.li@connect.ust.hk

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. Identify the differences in norms and practices between the major social science disciplines with respect to the application of standard research techniques.
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	15%	Friday, February 28 by 23:59
Annotated Bibliography	15%	Friday, March 28 by 23:59
Development of a Hypothesis	15%	Friday, April 18 by 23:59
Research Design Paper	25%	After last class; due date TBD
Critical Questions for Research Spotlights	10%	Various due dates; further details explained in class
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 400-500 words, develop a social science research question that could potentially be addressed using quantitative data analysis. The specific questions themselves will usually be only one, and up to a few, sentences. The remainder of the 400-500 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 a topic of his or her choosing, each student will construct an annotated bibliography consisting of about 150-200 words on each of 5 different sources from the scholarly literature. The 150-200 words should briefly summarize the main findings of each citation and offer appropriate positive and negative critical commentary. The description should not be mere summary. More details will be provided in class.
Development of a Hypothesis	ILO2, ILO4	On a topic of his or her choosing, each student will construct an empirical research hypothesis. The hypothesis itself should typically only consist of one sentence of text (with some exceptions), but it should be drawn from a theoretical argument rooted in scientific literature, empirical observation, and logical argument. The theoretical argument from which the hypothesis is drawn should consist of about 250-400 words.

Research Design Paper	ILO1, ILO2, ILO3, ILO4	In consultation with the instructor, students will develop an original research design on a topic of their choosing. Students should suggest a feasible research project that could be carried out in the future, using the course materials as guidance. Students are not expected to actually carry out the suggested empirical analysis. In a writeup of about 4000 words to be turned in after the last day of class, students will develop a literature review, suggest a theoretical framework, draw testable hypotheses, and suggest how they would use empirical data and quantitative techniques to address the phenomenon. More details will be provided in class.
Critical Questions for Research Spotlights	ILO1, ILO3	Beginning in Week 6, Wednesday classes will largely consist of discussion of an exemplary study or general topic in a social science subfield. Students will have one relatively advanced reading that they are expected to complete prior to class. From Week 6 until the end of the course, all students are expected to sign up for one week in which they will construct discussion questions that are intended to help guide discussion. On Tuesday of the week that students sign up for, they will submit five discussion questions to the instructor by 12:00 (noon). 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 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, 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 five different sources from the scholarly literature, summarized the main findings of each of the five sources, and offered some critical commentary for each of the five sources. The summary and critical commentary are performed with a high level of clarity.
    - B: Generally all of 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.

Development of a Hypothesis
- Marking distinctions will be based on the following criteria:
    - A: Student clearly states a research hypothesis that could potentially be tested using empirical data. The hypothesis and theory from which it is drawn are performed with a high level of clarity.
    - B: The criteria for an A grade are covered, but clarity is lacking; or one component is performed with a high level of clarity and another is not.
    - C: Only some of the criteria for an A grade are covered and improvements could be made with respect to clarity.
    - 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 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.

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
The use of generative AI is permitted. Students are particularly discouraged from over-reliance on generative AI for the generation of original ideas (e.g., final paper topics). Students are particularly encouraged to use generative AI to assist with editing English prose.

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. There is no text that is perfect for this course, and therefore there is no text that students are required to purchase.

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)

Monday, February 3
- Introduction and Course Overview

Wednesday, February 5
- Overview of Empirical Social Science
  - Readings:
    - King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press. [pp. 7-19]
- Activity: The First Steps of the Research Process

Monday, February 10
- Theory Development in the Social Sciences
  - Readings:
    - King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press. [pp. 19-23]
    - 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]

Wednesday, February 12
- Activity: Speculation and Theory Building

Monday, February 17
- Measurement: Conceptualization and Operationalization
  - Readings:
    - Bhattacherjee, Anol. *Research Methods for the Social Sciences*. Open textbook. [Ch. 6, Available at: https://courses.lumenlearning.com/suny-hccc-research-methods/ chapter/chapter-6-measurement-of-constructs/]

Wednesday, February 19
- Activity: From Concept to Measurement

Monday, February 24
- Measurement: Reliability and Validity
  - o Readings:
    - ▪ Bhattacherjee, Anol. *Research Methods for the Social Sciences*. Open textbook. [Ch. 7, Available at: https://courses.lumenlearning.com/suny-hccc-research-methods/ chapter/chapter-7-scale-reliability-and-validity/]

Wednesday, February 26
- Activity: Measurement Validity and Reliability

Monday, March 3
- Data Collection
  - o Readings:
    - ▪ King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press. [pp. 23-28]
    - ▪ Bhatacherjee, Anol. *Research Methods for the Social Sciences*. Open textbook. [Ch. 8, through section on "Non-Probability Sampling", Available at: https://courses. lumenlearning.com/suny-hccc-research-methods/chapter/chapter-8-sampling/]

Wednesday, March 5
- Activity: Interpreting Quantitative Data Analyses

Monday, March 10
- Internal and External Validity of Research Designs
  - o Readings
    - ▪ Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. New York: Houghton, Mifflin, and Co. [pp. 53-63, 83-93]

Wednesday, March 12
- Research Spotlight: Social Conformity
  - o Readings:
    - ▪ Asch, S.E. 1955. "Opinions and Social Conformity." *Scientific American* 193(5): 31-35.

Monday, March 17
- Statistical Modeling
  - o Readings:
    - ▪ Jones, Kelvyn. 2012. "Introduction to Statistical Modelling." In Bridget Somekh and Cathy Lewin, eds., *Theory and Methods in Social Research*. New York: Sage. [pp. 241-247]

Wednesday, March 19
- Research Spotlight: Delayed Gratification and Life Outcomes
  - o Readings
    - ▪ Mischel, Walter, Yuichi Shoda, and Monica L. Rodriguez. 1989. "Delay of Gratification in Children." *Science* 244(4907): 933-938.

Monday, March 24
- Central Tendency and Variability
  - Readings:
    - Crump, Matthew J.C., Paul C. Price, Rajiv Jhangiani, I-Chant A. Chiang, and Dana C. Leighton. 2018. *Research Methods for Psychology*. Open Source Ebook. [Sections 13.1.1-13.1.9, Available at: https://www.crumplab.com/ResearchMethods/ descriptive-statistics.html]

Wednesday, March 26
- Research Spotlight: Social Networks
  - Readings: Milgram, Stanley. 1967. "The Small World Problem." *Psychology Today* 2: 61-67.

Monday, March 31
- Hypothesis Testing
  - Readings:
    - Crump, Matthew J.C., Paul C. Price, Rajiv Jhangiani, I-Chant A. Chiang, and Dana C. Leighton. 2018. *Research Methods for Psychology*. Open Source Ebook. [Sections 14.1.1-14.1.6, Available at: https://www.crumplab.com/ResearchMethods/ inferential-statistics.html]

Wednesday, April 2
- No class: Mid-Term Break

Monday, April 7
- Correlation and Causation
  - Readings:
    - Singh, Seema. 2018. "Why Correlation Does Not Imply Causation." [Available at: https://towardsdatascience.com/why-correlation-does-not-imply-causation-5b99790df07e]

Wednesday, April 9
- Research Spotlight: Group Psychology
  - Readings:
    - Tajfel, Henri. 1970. "Experiments in Intergroup Discrimination." *Scientific American* 223(5): 96-103.

Monday, April 14
- Data Presentation
  - Readings: None

Wednesday, April 16
- Research Spotlight: Field Experiments
  - Readings:
    - Paluck, Elizabeth Levy, and Donald P. Green. 2009. "Deference, Dissent, and Dispute Resolution: An Experimental Intervention Using Mass Media to Change Norms and Behavior in Rwanda." *American Political Science Review* 103(4): 622-644.

Monday, April 21
- No class: Easter Monday Holiday

Wednesday, April 23
- Research Spotlight: The Contact Hypothesis
  - Readings:
    - LaCour, Michael J., and Donald P. Green. 2014. "When Contact Changes Minds: An Experiment on Transmission of Support for Gay Equality." *Science* 346(6215): 1366-1369.

Monday, April 28
- Introduction to New Frontiers in Social Science Research
  - Readings: None

Wednesday, April 30
- Research Spotlight: The Replication Crisis
  - Readings:
    - Open Science Collaboration. 2015. "Estimating the Reproducibility of Psychological Science." *Science* 349(6251): aac4716.

Monday, May 5
- No class: Birthday of Buddha Holiday

Wednesday, May 7
- End of Semester Wrap Up