

Data Analysis for Quantitative Social Research (SOSC 1110)

Spring 2024

Room 4402 (Lift 17-18); Wed, 15:00-17:50

Instructor: Yifan Shen

Email: yifanshen@ust.hk

Office Hours: Wednesday 11-11:45 AM & 2-3 PM (Note: you need to make an appointment for OH at least 24 hours in advance on this [page](#). OH requested after the deadline will not be accommodated)

Office Address: Room 2370

Teaching Assistant:

TA: LI Jiajun

Email: jjajun.li@connect.ust.hk

Office Hour: Wednesday 10:00 am - 11:59 am (by appointment)

Office: SHSS RPG Commons (Room 3001, lift 4)

COURSE DESCRIPTION

This course focuses on practical aspects and implementation of social data analysis by introducing basic yet hands-on techniques for presenting, analyzing, and interpreting quantitative data, many of which are rarely taught in a regular statistics course. It is deliberately designed as complementary to a formal and theoretically-oriented introductory statistics course. This course introduces basic knowledge about quantitative data analysis from a social scientific perspective, from data generating processes to causal inference. Devoted computing sessions, a signature feature of the course, demonstrate hands-on techniques, such as data extraction, data management, variable manipulation, and descriptive analysis. Students will have the chance to implement ideas and methods from the lectures through in-class exercises and by applying what they learn to real-world data. Upon completion of the course, students should have acquired useful skills for social data analysis as well as a better understanding of quantitative social scientific research.

COMPUTING

Stata will be used as the major computing tool. You can access *Stata* either using our classroom computers or through [Virtual Barn](#). There are probably some other computers on campus that have *Stata* installed (I remember many computers in the library have *Stata*), but you will need to find out their location by yourself.

TEXTBOOK

Great News: No required textbook. The recommended reference books are

[Statistics from OpenStax](#)

[Getting Started with Stata for Windows](#)

[Data Analysis Using Stata, Third Edition](#)

ASSESSMENT

Your grade will be determined as follows:

(1) Attendance: 10%

The TA/instructor will record attendance on five randomly selected sessions. If you have to miss a class session for medical reasons, email the TA at least one hour before

the class start time (leave applications submitted after that will not be accepted unless they are due to medical emergencies) with a valid medical proof on which the doctor explicitly recommends leave for the day of absence. Do not email the instructor about class attendance issues.

(2) *Quiz: 40%*

There will be one quiz in the last week of the course (see schedule below).

(3) *Assignment: 40%*

There will be one assignment to help you hone your Stata skills. You will start working on them during a lab session under the guidance of TA and then submit your work to Canvas (see schedule below).

(4) *Class Participation: 10%*

Learning is more rewarding if the learners proactively participate in class discussions and openly voice their questions or concerns. The instructor and the TA will pay attention to each student's class participation and give higher marks to those who participate in class discussions actively.

COURSE SCHEDULE (subject to change; updates will be posted on Canvas)

<i>Week</i>	<i>Topic</i>	<i>Date</i>	<i>Note</i>
1	Course Overview	Jan 31	
2	Introduction to Stata	Feb 7	
3	Preparing and Transforming Your Data	Feb 14	
4	Data Manipulation in Stata	Feb 21	
5	Descriptive Statistics in Stata	Feb 28	
6	Lab Assignment (TA)	Mar 6	Assignment due at 5pm Mar 12
7	Descriptive Statistics in Stata	Mar 13	
8	Measurement and Sampling	Mar 20	
9	Central Limit Theorem	Mar 27	
9	No class	Apr 3	No class (Mid-term Break)
10	Hypothesis Testing	Apr 10	
11	Hypothesis Testing	Apr 17	
12	Hypothesis Testing	Apr 24	
13	No class	May 1	No class (Labor Day)
14	Quiz	May 8	Quiz