# **COURSE INFORMATION**

Course Title	Course Code - Section	Credit Value
SOCI 328 Social Statistics I	SOCI 328 - 101	3

Class Time	Class Location	Session Term
Mon/Wed 11:00 am – 12:20 pm	ANSO 207	2022W1

# Description

This course introduces students to elementary techniques of quantitative data analysis common in sociological research. It emphasizes selection of appropriate statistical techniques, examination of assumptions associated with them and interpretation of the results provided by them. The course does not emphasize complex calculations or memorization of complex formulae.

### Prerequisites and Anti-requisites

Three credits of 100-level SOCI is the only prerequisite for this course. The Science Credit Exclusion List in the UBC Calendar indicates that students cannot apply credits from any two of the following introductory statistics courses to their UBC degrees: STAT 200, 203, BIOL 300, COMM 291, ECON 325, 327, EPSE 482, 483, FRST 231, GEOG 374, KIN 371, POLI 380, PSYC 218, 278, 366, SOCI 328.

### Learning Objectives

In this course, students will:

- Develop an understanding of the importance of statistics in the social sciences
- Learn to think critically about quantitative data described in scientific and media reports
- Learn how to calculate and interpret basic descriptive statistics
- Become familiar with the concept of statistical inference
- Learn to determine when, why and how various statistical techniques are used
- Learn to analyze data using statistical software

# **Learning Materials**

Garner, Roberta. 2010. The Joy of Stats. Second Edition. Toronto: The University of Toronto Press.

The statistical software program Stata is available for Windows, Mac and Linux and can be downloaded for free by Arts students at the UBC Software Portal (<a href="https://ubc.onthehub.com/WebStore/Welcome.aspx">https://ubc.onthehub.com/WebStore/Welcome.aspx</a>). Stata is also available in the ANSO Computing Lab (Room 150), Buchanan B101 and B121 and Koerner Library 218A.

The following materials are available in Canvas:

- Course syllabus (Files/Syllabus)
- Lecture slides (Files/Slides)
- GSS and Country datasets and documentation (Files/Stata materials)
- Practice questions (Files/Practice materials)

# LEADERSHIP TEAM

Instructor	Contact	Office Hours
Gerry Veenstra	gerry.veenstra@ubc.ca	TBD (in Zoom)

I moved to Vancouver in 1998 after completing my PhD at McMaster University in Hamilton, Ontario (very near to where I grew up). I didn't know anyone when I first got here but I made some friends, played lots of soccer, got married and had a couple of kids – I won't be leaving this beautiful city anytime soon. My research primarily entails quantitative investigation of social determinants of health. You can find out more about me and my research here: <a href="https://sociology.ubc.ca/profile/gerry-veenstra/">https://sociology.ubc.ca/profile/gerry-veenstra/</a>

Teaching Assistant	Contact	Office Hours
Tom Einhorn	tom.einhorn@ubc.ca	TBD (in Zoom)

I am a PhD candidate in the Department of Sociology. I moved to Vancouver three years ago. Before that I lived in Jerusalem, Israel where I obtained my bachelor and master degrees. My research interests are social movements, protest and minority collective identities. In my free time I like to binge watch Murder, She Wrote and try to figure out who the murderer is before Jessica does. You can find out more about me here: <a href="https://t.co/4Xo8U6tloM">https://t.co/4Xo8U6tloM</a>

### Communication

The instructor and TA can be reached by email or through Canvas; we will do our best to respond in a timely manner. Students are encouraged to consult Canvas regularly for announcements.

### ASSESSMENTS FOR LEARNING

#	Component	Weight
1	Assignment 1	15%
2	Assignment 2	15%
3	Assignment 3	15%
4	Assignment 4	15%
5	Assignment 5	40%
	Total	100%

The assignments are located in the Assignments section of Canvas and entail the online submission of short reports based on applying statistical techniques to real data using Stata. The submission deadlines for the assignments are provided below.



# SCHEDULE

Date	Unit	Topics	Textbook readings
Wed Sep 7	Unit 1: Introduction	Learning objectives	pp. 17–27
Mon Sep 12	Unit 2: Variables	Unit of analysis; variables; levels of measurement	pp. 29–41
Wed Sep 14	Unit 3: Causality	Criteria for causality; multivariate causal scenarios	pp. 41–45
Mon Sep 19	Unit 4: Sampling	Descriptive and inferential statistics; parameters and statistics; sampling strategies	pp. 46–49
Wed Sep 21	Unit 5: Summarizing	Frequency tables; pie and bar	pp. 55–66, 70–79
	variables – Part 1	charts; central tendency; dispersion	
Mon Sep 26	Unit 5: Summarizing variables – Part 2	Shape; transformations	
Wed Sep 28	Lab for Assignment 1		
Thurs Sep 29	Assignment 1 due @ 11:59 pm		
Mon Oct 3	Unit 6: Statistical inference  – Part 1	Tests of significance; Type I and Type II errors	pp. 128–142
Wed Oct 5	Unit 6: Statistical inference – Part 2	Confidence intervals; inferring means and proportions	
Mon Oct 10		No class (Thanksgiving)	,
Wed Oct 12	Unit 7: Categorical by categorical associations – Part 1	Contingency tables; % differences; Cramer's V; Kendall's tau-b	pp. 153–155, 157, 191– 199
Mon Oct 17	Unit 7: Categorical by categorical associations – Part 2	Chi-squared test of significance; statistical and practical significance	
Wed Oct 19	Lab for Assignment 2		
Mon Oct 24	Lab for Assignment 2		
Tue Oct 25	Assignment 2 due @ 11:59 pm		
Wed Oct 26	Unit 8: Quantitative by quantitative associations – Part 1	Scatterplots; Pearson's r	pp. 156, 166–186
Mon Oct 31	Unit 8: Quantitative by quantitative associations – Part 2	OLS regression line; Spearman's rho	
Wed Nov 2	Lab for Assignment 3		

Mon Nov 7	Lab for Assignment 3		
Tue Nov 8	Assignment 3 due @ 11:59 pm		
Wed Nov 9	No class (Winter Break)		
Mon Nov 14	Unit 9: Categorical by quantitative associations	Comparing central tendencies, dispersions and shapes; oneway ANOVA test of significance	pp. 157–158, 203–209
Wed Nov 16	Lab for Assignment 4		
Mon Nov 21	Lab for Assignment 4		
Tue Nov 22	Assignment 4 due @ 11:59 pm		
Wed Nov 23	Unit 10: Multiple regression – Part 1	Basics of multiple regression	pp. 159–165, 186–190
Mon Nov 28	Unit 10: Multiple regression – Part 2	Examples of multiple regression	
Wed Nov 30	Lab for Assignment 5		
Mon Dec 5	Lab for Assignment 5		
Wed Dec 7	Lab for Assignment 5		
Fri Dec 9	Assignment 5 due @ 11:59 pm		

# **POLICIES**

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and as such there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the UBC Senate website.

# **Academic Integrity**

The academic enterprise is founded on honesty, civility and integrity. As members of this enterprise, all students are expected to know, understand and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply when the matter is referred to the Office of the Dean. Careful records are kept in order to monitor and prevent recurrences. A more detailed description of academic integrity, including the University's policies and procedures, may be found in the UBC Calendar: Student Conduct and Discipline.

### Late or Missed Assignments

Late assignments will be penalized 5% per day. Students who encounter medical, emotional or personal problems that affect their ability to complete an assignment in a timely manner should submit the Request for Academic Concession and Student Self-Declaration forms to Arts Academic Advising Services. If accepted, the assignment may be submitted at a later date without penalty.

# Academic Accommodation for Student with Disabilities

Academic accommodations help students with a disability or ongoing medical condition overcome challenges that may affect their academic success. Students requiring academic accommodations must register with the Centre for Accessibility. They will determine the student's eligibility for accommodations in accordance with Policy 73: Academic Accommodation for Students with Disabilities. Academic accommodations are not determined by your instructors and instructors should not ask you about the nature of your disability or ongoing medical condition or request copies of your disability documentation. However, your instructor may consult with the Centre for Accessibility should the accommodations affect the essential learning outcomes of a course.

# Copyright

All materials of this course (lectures, assessments, course readings, etc.) are the intellectual property of the instructor or licensed to be used in this course by the copyright owner. The recorded lectures should not be downloaded from Canvas. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline.

### **ACKNOWLEDGEMENT**

UBC's Point Grey Campus is located on the traditional, ancestral and unceded territory of the xwməθkwəyəm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people who for millennia have passed on their culture, history and traditions from one generation to the next on this site.