

Faculty of Human, Social and Political Science HSPS Tripos

Soc 5 / Crim 2: Statistics and Methods

Teaching Staff

Prof Maria Iacovou (mi305@cam.ac.uk) [quantitative lectures; course organiser]

Prof Darin Weinberg (dtw23@cam.ac.uk) [qualitative methods lectures for Soc 5 students]

About the course

The paper consists of 12 lectures on quantitative methods and statistics, and 6 lectures on qualitative methods. In addition, there are workshops where you'll learn the practical implementation of the methods taught.

The course is designed not only to teach you about the theoretical aspects of sociological research, but also to give you hands-on practice in applying research techniques. As well as lectures which teach you the theory of research methods, the course includes lab sessions where you'll learn how to use the statistical package STATA to analyse data from some of the same data sets used by professional researchers, and workshops where you'll learn how to design semi-structured interviews and undertake thematic analysis.

How much maths will I need?

Some students are worried that they won't be able to cope with the quantitative section of the course because they don't know enough maths. In fact, the course does not assume any knowledge of maths beyond the basics that you will have learned at GCSE level. It's taught in a very interactive way, with a lot more fun and laughter than you might expect. If you are *at all* worried about this, please get in touch to ask.

The course will enable you to read and understand published research based on quantitative methods in your own field of interest - an extremely useful skill, even if you don't propose to do quantitative research yourself. In addition, a working understanding of statistics and quantitative research is extremely marketable and can greatly enhance your employment prospects in a range of areas.

Structure of the course

In comparison with other papers in the Tripos, Soc 5 requires much less reading and writing, but has many more contact hours in lectures and workshops.

The material in Soc 5 / Crim 2 is taught in a progressive way – you will only be able to understand each lecture if you have attended the previous lectures and lab sessions. ***So please, before registering for this paper, check the timetable carefully, and ensure that you are able to attend IN PERSON all the lectures and lab sessions. We'll provide support if you need to catch up, but attendance is really important.***

Aims and Objectives

After completing this paper, students will:

- Have learned about a range of quantitative and qualitative methods used in empirical research
- Be able to read critically, and comment on, published research using these methods
- Appreciate the limitations of the methods taught, and common mistakes which may be made in empirical research
- Know where to go to find information on more advanced or complex research methods
- Understand how to write up the results of empirical research
- Know how to apply quantitative methods correctly using appropriate software packages, and how to apply statistical tests to assess the validity of quantitative results
- Understand the importance of documentation and replicability in quantitative research
- Be in an excellent position to plan and carry out a dissertation in your final year

Paper content

The course is organised into two modules. The first covers **quantitative methods**: descriptive statistics; bivariate correlation; multivariate linear regression, and factor analysis. Students will read published work employing each of the methods; learn how to implement the method in STATA with “real” data, and how to test whether results are statistically valid.

The second module covers topics in **qualitative methods**. Soc 5 will cover the purpose and principles of qualitative research, and give an overview of different types of qualitative research. In workshops, you will learn the practicalities of designing and implementing semi-structured interviews, and doing thematic analysis. Crim 2 students will select seminars on a range of criminological topics (see page 5).

Course requirements

No prior knowledge is needed, but please see the advice below relating to equipment:

- You will need your own laptop to access the course materials and statistical packages. Any reasonable Mac or Windows machine is fine, but the statistical package won't work on a Chromebook or an iPad.
- When attending quantitative lectures, please bring the following old-fashioned supplies: paper, a pencil and an eraser.

Mode of assessment

A one-hour multiple-choice exam on quantitative methods and statistics

A two-hour examination, in which students will answer two questions, one on quantitative methods and one on qualitative methods.

Mode of teaching

	12 two-hour lectures
Quantitative methods	6 two-hour lab sessions
	4 one-hour supervisions*
<hr/>	
	6 one-hour lectures
Qualitative methods	2 three-hour workshops
	2 one-hour supervisions*
<hr/>	
Exam revision	2 one-hour revision lectures
	2 two-hour supervisions, at least one on quantitative methods*

* The provision of supervisions may vary this year if planned industrial action by College supervisors goes ahead

Recording policy

Qualitative lectures: Full transcripts are available on Moodle.

Quantitative lectures: Powerpoint slides plus pre-recorded lectures are on Moodle. These will be made available to all students. The only condition for access to these recordings is that students must attend a sufficient number of lectures in person.

Workshops: All materials are made available on Moodle. However, because these sessions are conducted on a supported self-study basis, recordings are not made available, and there is no point attempting to make a recording of any session.

Lecture List

Quantitative methods

Lectures (2 hours)

MT, Week 1	Prof Iacovou	Background to statistical inference and hypothesis testing
MT, Week 2	Prof Iacovou	Variables, and variable types; graphical tools for describing distributions
MT, Week 3	Prof Iacovou	Measures of central tendency & dispersion; summary statistics
MT, Week 4	Prof Iacovou	Working with the normal distribution
MT, Week 5	Prof Iacovou	Bivariate analysis – cross-tabulations
MT, Week 6	Prof Iacovou	Bivariate analysis II
MT, Week 7	Prof Iacovou	Basics of Stata I
MT, Week 8	Prof Iacovou	Basics of Stata II

LT, Week 1	Prof Iacovou	OLS regression
LT, Week 2	Prof Iacovou	More about OLS regression, and writing up results
LT, Week 3	Prof Iacovou	Logistic regression
LT, Week 4	Prof Iacovou	Mediating and confounding relationships
LT, Week 5	Prof Iacovou	Additional topics in multivariate analysis
LT, Week 6	Prof Iacovou	Factor Analysis
LT, Week 7		Please keep this slot free in case an additional lecture is needed

Workshops (2 hours)

LT, Week 2	Prof Iacovou
LT, Week 3	Prof Iacovou
LT, Week 4	Prof Iacovou
LT, Week 5	Prof Iacovou
LT, Week 6	Prof Iacovou
LT, Week 7	Prof Iacovou

Qualitative methods (CRIM 2 students, please consult your Department)

Lectures (1 hour)

MT, Week 1	Prof Weinberg	Science, Logic and the Real
MT, Week 2	Prof Weinberg	On Natural Sciences and Social Sciences
MT, Week 3	Prof Weinberg	Reflexivity
MT, Week 4	Prof Weinberg	What are Qualitative Research Methods?
MT, Week 5	Prof Weinberg	Qualitative Interviewing, Life History, and Narrative Analysis
MT, Week 6	Prof Weinberg	Language as Social Practice: An Introduction to Ethnomethodology

Workshops (2.5 hours)

MT, Week 7	TBA	Preparing a qualitative research project
MT, Week 8	TBA	The semi-structured interview
LT, Week 1	TBA	Thematic analysis

Reading list

Quantitative Methods

The course does not rely heavily on reading; most of what you need to know will come from the lectures, and you'll also receive handouts for the tutorials and practical sessions. The following sources are helpful:

Bryman, A. (2021) *Social Research Methods*. This is the main text for the course. There are several older editions of this book, which are also fine to use.

Field, A. (2013) *Discovering Statistics Using IBM SPSS Statistics*

Smithson, M. (2000) *Statistics with confidence*

Levin, J. & Fox, J.A. (2003) *Elementary Statistics in Social Research*

Acock, A. (2016) *A gentle introduction to Stata*

The course requires NO mathematical knowledge. But if you're good at maths and want to read up on the maths behind the techniques we use on this course, please just ask.

Qualitative Methods (Soc 5)

Core texts are listed below. In addition, supplementary readings are provided for each lecture.

Emerson, Robert M. 2001. *Contemporary Field Research: Perspectives and Formulations*, second edition. Prospect Heights, IL: Waveland Press

Gubrium, Jaber F., and James A. Holstein. 1997. *The New Language of Qualitative Methods*. Oxford: Oxford University Press

Heritage, John. 1984. *Garfinkel and Ethnomethodology*. Cambridge: Polity

Schegloff, Emanuel. 1991. "Reflections on Talk and Social Structure." In *Talk and Social Structure: Studies in Ethnomethodology and Conversation Analysis*. Edited by Deirdre Boden and Don H. Zimmerman. Berkeley: University of California Press

*Weinberg, Darin (ed.). 2002. *Qualitative Research Methods*. Malden, MA: Blackwell

Qualitative methods for CRIM 2 students

Please contact the CRIM 2 convenor, Maria Ttofi (imt394@cam.ac.uk) to arrange a suitable series of seminars and workshops.