

# Units in Data Analytics (YEAR 1)

*Offered by the department of Social Statistics.*



The University of Manchester

School of Social Sciences

## Why take our units?

The world needs critical data consumers and producers now more than ever. The department of Social Statistics offers units that give you the opportunity to develop data analytic and statistical skills and gain hands on experience in analysing data with a variety of statistical software. Whatever your degree subject, whatever your career ambitions, acquiring critical data skills will make you a highly valued prospective employee upon graduating. Our units emphasise the application of statistics and data analytics methods to real world problems, making them relevant and exciting as well as useful. We offer options that will suit a range of needs and previous experience. Whether you are a student looking for more advanced training in data analytics or statistics or someone who did not have a positive experience of maths at school and is looking for a more basic introduction, there is something for you

## Units in Data Analytics offered by the Department of Social Statistics in Year 1.

**SOST10021 Measuring Inequalities (Unequal Societies).** Why are certain types of people happier or healthier than others? Why do certain groups of people live longer than others? How do we measure and explain the differences? This course will develop your knowledge of the evidence for understanding inequality in relation to health, wellbeing and happiness through training and practice analyses of social survey data using software such as Excel and SPSS.

**SOST10142/SOST20142 Applied Statistics.** This is a practical course where students will learn how to prepare and analyse real world data using the popular statistical software "R". After covering some of the essential statistical techniques, you will learn to implement increasingly powerful and advanced models, ranging from regression all the way to generalized linear models.

**SOST10022 Understanding Social Media** In the age of Big Data, people are creating archives of their lives as they use different services and communication tools such as blogs, Instagram and Twitter. This course introduces the analytical skills required for collecting and analysing social media data. Students learn how social media data can help our understanding about public attitudes and challenging social problems, while gaining insights about the limitations imposed by the research design and ethical considerations.

**SOST10062 Introductory Statistics for Economists** This unit introduces basic statistical concepts and research methods for students in Economics and the Social Sciences (Politics, Criminology, Sociology, Education, etc). Students will learn core ideas and methods for exploring data and undertaking statistical inference. These skills are gained while analysing real data in Excel. By completing this unit, students will further develop skills in interpreting and presenting statistical results.

# New degree pathways in data analytics

The Department of Social Statistics and the School of Social Sciences now offer a range of **joint degree pathways** that allow students to combine the study of Data Analytics with a range of social science subjects including Economics, Politics, Sociology, Criminology Philosophy and Social Anthropology.

**Why a joint pathway with data analytics?** Our Data Analytics pathways are designed to emphasise the application of methods to real world issues and problems. By combining study of a social science subject like Politics or Sociology alongside training in data analytics you develop not only a theoretical understanding of your subject but the skills to explore the topics and questions that interest you with real data. It is a combination that will help you to understand your subject better as well as enabling you to conduct your own research more effectively in projects and dissertations.

## Our Pathways

### BA Economics (BAEcon) and Social Statistics\*

*\*to be restructured and renamed 'and **Data Analytics**' from 2021*

*Students take the following units in data analytics alongside units in Economics*

Year 1	SOST10142 Applied Statistics
Year 2	SOST20022 Essentials of Survey Design SOST20131 Answering Research Questions Using Statistical Models
Year 3	SOST30062 Data Science Modelling SOST30172 Quantitative Evaluation of Policies, Interventions and Experiments <i>and at least one from:</i> SOST30022 Advanced Social Networks Analysis SOST30012 Theory & Method in Demography

### BA Social Sciences (BASS) Subject area\*\* and Quantitative Methods\*

*\*to be restructured and renamed 'and **Data Analytics**' from 2021*

*\*\*choose from Politics, Sociology, Criminology Philosophy and Soc Anthropology*

*Students take the following units in data analytics alongside units in their other subject*

Year 1	SOST10021 Measuring Inequalities
Year 2	SOST20022 Essentials of Survey Design SOST20142 Applied Statistics
Year 3	SOST30031 Answering Research Questions Using Statistical Models <i>and at least one from</i> SOST30062 Data Science Modelling SOST30172 Quantitative Evaluation of Policies, Interventions and Experiments SOST30022 Advanced Social Networks Analysis SOST30012 Theory & Method in Demography

### What do our students say?

*'I never thought maths was my strong suit but the BASS degree enabled me to blend statistics with sociology. I did a quantitative dissertation, on young people's sleep patterns, and I now work as an employment and skills data analyst in the Greater Manchester Combined Authority. My degree opened career options to me I never thought I'd have.'*

*'My internship with the Home Office helped me meet social researchers and data analysts and understand what those roles are, and how I could get into those jobs as a graduate. It's given me a lot more confidence career-wise'*

**Internships:** We have a strong track record in providing high quality paid internships with a wide range of prestigious organisations (from small local charities to government departments). These give students the opportunity to apply and further develop their data skills in a real-world data-driven research project, and develop professional networks.

**Data Analytics Student Network:** Involving all students on our pathways, the network will connect you to the data analytics community at the university and the many organisations we work with. It will offer opportunities to get involved and learn more about the ways you might apply your skills and interests in study and future careers

### More information? Contact..

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