**MSc Data Analytics for Government at University of Southampton**

The MSc Data Analytics for Government (MDataGov) at the University of Southampton provides an opportunity to study a range of topics highly relevant to modern work in government statistics. This course provides an introduction to data analytics alongside statistical topics from Southampton’s highly acclaimed MSc in Official Statistics.

***Programme structure***

MDataGov at Southampton is tailored to students wishing to study part-time in blocks, with each module taught in a one-week block over four or five days with a mix of lectures, tutorials, exercises, computer workshops and private study time. Modules are examined by either coursework or examination. MDataGov has four compulsory modules, with the remaining eight modules made up from a range of options. The four core modules are:

* Survey Fundamentals
* Data Science Foundations
* Statistics in Government
* Statistical Programming

and the options in 2017-18 may be chosen from

* Introduction to Survey Research
* Demographic Methods
* Evaluation and Monitoring
* Regression Modelling
* Index Numbers
* Time Series Analysis
* Economics and National Accounts
* Statistical Disclosure Control
* Advanced statistical modelling I: Generalised Linear Models
* Advanced statistical modelling III: Multilevel Modelling

In future years the following additional options will be offered

* Further survey estimation
* Advanced statistical modelling II: analysis Analysis of complex survey data
* Small area estimation
* Survey data collection

and we expect that further data science-related options will also become available as the programme develops.

The taught element of the programme is followed by the opportunity to undertake a period of supervised research for a Master’s dissertation in an area related to the programme. The dissertation should be between 15,000-20,000 words in length. The University has a strong team of staff with experience of working in many topics in official statistics, and has an excellent track record of supervising dissertations with many different data sources, approaches and research questions. Data science research related to official statistics will also be an option in this programme.

***Entry requirements***

It is normally expected that you will have the equivalent of at least a second-class honours degree, with some exposure to statistical methods (eg in geography, psychology, population sciences, economics/econometrics, statistics, mathematics), and that you will usually be employed in the area of official statistics. In some circumstances, previous relevant professional experience will be taken into consideration.

Students who have a degree with no statistical content will be required to show that they have the necessary background knowledge to the level of the Royal Statistical Society Higher Certificate in Statistics.

In addition, an introductory revision module covering basic mathematics and statistics and an introduction to R is run every September to help students prepare for postgraduate study. Attendance on this module is an entry requirement.

In line with the University's equal opportunities policy, individuals are selected and treated according to their relevant merits and abilities and are given equal opportunities in the Division and University. The aim of the policy is to ensure that no student or prospective student should receive any less favourable treatment on any grounds which are not relevant to academic ability or attainment. Decisions on admission are based solely on the grounds of academic merit.

***Costs***

The whole MDataGov programme costs £9,000. Individual modules can be followed as Continuing Professional Development at a cost of £900 per module.

***Further information***

Further information on MDataGov will shortly be available from the University of Southampton’s website, or you can contact the Programme Coordinator, Paul Smith [p.a.smith@soton.gov.uk](mailto:p.a.smith@soton.gov.uk).

**MOffStat/MDataGov Modules outline schedule 2017-8**

Provisional 3 July 2017

**Timetable 2017-2018**

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| --- | --- | --- | --- | --- |
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| **Module** | **MDataGov Description** | **Location** | **Dates 2017/18** | **Assessment** |
| ([no code](http://www.southampton.ac.uk/sites/demography/postgraduate/taught_modules/official_statistics_introduction_module.page)) | Introduction Module\* | Southampton | 11 Sep – 15 Sep |  |
| [STAT6096](http://www.southampton.ac.uk/sites/demography/postgraduate/taught_modules/stat6096_introduction_to_survey_research.page) | Introduction to Survey Research | Newport | 02 Oct – 06 Oct | Exam |
| STAT6090 | Advanced Statistical Modelling I: Generalised linear models | Southampton | 9-13 Oct | Coursework |
| STAT6105 | Economics and National Accounts | Newport | 16 Oct – 20 Oct | Exam |
| [STAT6089](http://www.southampton.ac.uk/sites/demography/postgraduate/taught_modules/stat6089_evaluation_and_monitoring.page) | Evaluation & Monitoring | Southampton | 30 Oct – 03 Nov | Coursework |
| [DEMO6020](http://www.southampton.ac.uk/sites/demography/postgraduate/taught_modules/demo6020_demographic_methods_1.page) | Demographic  Methods | Southampton | 13 Nov – 17 Nov | Exam |
| STAT6111 |  | Southampton | 20 Nov – 24 Nov | Exam |
| STAT | Data Science Foundations | Southampton | 20 Nov – 24 Nov | Exam |
| [STAT6093](http://www.southampton.ac.uk/sites/demography/postgraduate/taught_modules/stat6093_survey_sampling.page) |  | Southampton | 27 Nov – 1 Dec | Exam |
| STAT | Survey Fundamentals | Southampton | 27 Nov – 1 Dec | Exam |
| STAT6094 | Statistical Disclosure Control | Southampton | 11 Dec – 15 Dec | Exam |
|  |  |  |  |  |
| **Module** |  | **Location** | **Dates 2017/18** | **Assessment** |
| STAT6110 | Official Statistics in a European context † (subject to agreement that MSc DAG can be included as a basis for EMOS) | Southampton | 22 Jan – 26 Jan | Exam |
| [STAT6095](http://www.southampton.ac.uk/sites/demography/postgraduate/taught_modules/stat6095_regression_modelling.page) | Regression Modelling | Southampton | 29 Jan – 02 Feb | Coursework |
| STAT6102 | Advanced Statistical Modelling III: Multilevel Modelling | Southampton | 12 Feb – 16 Feb |  |
| [STAT6087](http://www.southampton.ac.uk/sites/demography/postgraduate/taught_modules/stat6087_time%20_series_analysis.page) | Time Series Analysis | Southampton | 26 Feb – 02 Mar | Coursework |
| DEMO6022 | (not available) | Southampton | 12 Mar – 16 Mar | Exam |
| [STAT6088](http://www.southampton.ac.uk/demography/postgraduate/taught_modules/stat6088_elements_of_official_statistics.page) | Statistics in Government | Southampton | 19 Mar – 23 Mar | Exam |
| [STAT6091](http://www.southampton.ac.uk/sites/demography/postgraduate/taught_modules/stat6091_index_numbers.page) | Index Numbers | Southampton | 09 Apr – 13Apr | Coursework |
| STAT | Statistical Programming | Southampton | June or July? | Coursework |

**Note: Those courses marked \* must be taken in year 1.**

**Those courses marked † are additional courses for those wishing to gain EMOS accreditation, and are *not* available as optional modules contributing to MOffStat. They may be taken as standalone CPD courses. They will only run if there is sufficient demand.**