Module Definition Form (MDF)

Module code: MOD009769	**Version:** 1 **Date Amended:** 11/Apr/2024

1. Module Title
Crime and Data Science

2a. Module Leader
Paul Stoneman

2b. School
School of Humanities and Social Sciences

2c. Faculty
Faculty of Arts, Humanities, Education and Social Sciences

3a. Level
6

3b. Module Type
Standard (fine graded)

4a. Credits
15

4b. Study Hours
150

5. Restrictions

Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	BA (Hons) Criminology; BA (Hons) Criminology and Policing; BA (Hons) Criminology and Sociology		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

In this module you will gain an understanding of how to use quantitative data and advanced statistical methods to explain and predict crime as well as profile offenders and victims. It is an intensive training module which focuses on the development of applied analytical skills.

You will become familiar with using the Crime Survey for England and Wales and other high-quality data sources to explore and model public attitudes towards crime, as well as using official statistics to estimate 'what works' when trialling interventions in the criminal justice system. You will also spend time looking at the emerging field of 'digital methods' and how knowledge of this approach is crucial for tracking and identifying potential criminals.

Given the statistical nature of the module, this module is only suitable for students who achieved a grade C or above in GCSE Maths (or equivalent) who are also comfortable with basic statistical concepts such as measures of central tendency (mean, mode, and median).

6b. Outline Content

- Statistical modelling
- Predictive modelling
- Profiling offenders and victims
- Web-scraping
- Digital methods

6c. Key Texts/Literature

The reading list to support this module is available at: https://readinglists.aru.ac.uk/

6d. Specialist Learning Resources

Statistical software: (1) IBM SPSS; (2) R

7. Learning Outcomes (threshold standards)

No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Demonstrate an appreciation of the emerging role that data science plays in the field of crime analysis and prevention
2	Knowledge and Understanding	Select appropriate statistical methods given a particular problem and form of data
3	Intellectual, practical, affective and transferrable skills	Effectively source, manage, and analyse quantitative data
4	Intellectual, practical, affective and transferrable skills	Report and present the findings of quantitative analyses clearly and accurately to non-academic audiences

8a. Module Occurrence to which this MDF Refers				
Year	**Occurrence**	**Period**	**Location**	**Mode of Delivery**
2025/6	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	**Hours**	**Learning Outcomes**	**Details of Duration, frequency and other comments**
Lectures	0	N/A	N/A - Lectures in this module are replaced with lab-based workshops
Other teacher managed learning	20	1-4	Ten x 2-hour lab-based workshops
Student managed learning	130	1-4	Student managed learning
TOTAL:	150		

9. Assessment for the above Module Occurrence					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
010	Coursework	1-4	100 (%)	Fine Grade	30 (%)
3000-word statistical report on a pre-defined question					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:
(a) achieve the qualifying mark for each element of fine graded assessment as specified above
(b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]