

Liverpool John Moores University

Title: Geographic Information Science and Geocomputation for Public Safety
Status: Definitive
Code: **6010PS** (120935)
Version Start Date: 01-08-2018

Owning School/Faculty: Liverpool Centre for Advanced Policing Studies
Teaching School/Faculty: Liverpool Centre for Advanced Policing Studies

Team	Leader
Adegbola Ojo	Y

Academic Level: FHEQ6
Credit Value: 24
Total Delivered Hours: 75
Total Learning Hours: 240
Private Study: 165

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	48
Tutorial	2
Workshop	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	A one hour examination with two sections (multiple choice and essay).	20	1
Essay	AS2	1,500 word essay.	20	
Report	AS3	A report which will be one of the outputs of a mini individual project.	60	

Aims

This module seeks aims to provide an introduction to the field of crime analysis and

crime mapping for student. It will cover some history, key concepts, data, as well as analytical methods and specific techniques used in the discipline of crime science. The module will focus on the practical application of fundamental Geographic Information Systems (GIS) concepts and how they can be adapted for understanding and interpreting crime patterns.

Learning Outcomes

After completing the module the student should be able to:

- 1 Evaluate and explain the core concepts underpinning crime pattern analysis.
- 2 Select and differentiate between appropriate techniques for analysing, mapping and interpreting crime data
- 3 Demonstrate basic or intermediate level of proficiency in the use of at least one GIS software package.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Exam	1	
Essay	1	2
Report	2	3

Outline Syllabus

- o Crime Analysis: Why Geography Matters*
- o Theoretical Frameworks of Crime Pattern Analysis*
- o Geographic Information Science and Systems: An Introduction*
- o Geographic Data and Crime Mapping*
- o Adding Geography to Crime Data*
- o Spatial Statistics for Crime Analysis*
- o Identifying and interpreting Crime Patterns*
- o Hot-Spots Analysis*

Learning Activities

The module will adopt a blended learning approach. This will combine e-learning techniques with more traditional teaching methods. Lectures and online learning materials will be used to provide an overview of each topic. The lectures will be delivered mainly by the module team. Guest speakers with varying relevant professional expertise may also be invited from time to time to deliver lectures within the curriculum. Workshops will be lab-based offering students the opportunity to undertake practical applications of theoretical concepts and techniques.

Notes

The module will expose students to a range of mixed-methodological techniques with a strong quantitative element. Students will also be trained to use at least one GIS software package and will be encouraged to understand its interoperability with other software.