

Liverpool John Moores University

Title: TRACE EVIDENCE ANALYSIS
Status: Definitive
Code: **7103PSCPD** (125064)
Version Start Date: 01-08-2021

Owning School/Faculty: Justice Studies
Teaching School/Faculty: Pharmacy & Biomolecular Sciences

| Team | Leader |
|-----------------|--------|
| Amanda Boddis | Y |
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Academic Level: FHEQ7 **Credit Value:** 20 **Total Delivered Hours:** 40
Total Learning Hours: 200 **Private Study:** 160

Delivery Options

Course typically offered: S1 & S2 & Summer

| Component | Contact Hours |
|-----------|---------------|
| Lecture | 14 |
| Online | 2 |
| Practical | 18 |
| Tutorial | 2 |
| Workshop | 4 |

Grading Basis: 50 %

Assessment Details

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|--------------|-------------------|----------------------------------|---------------|---------------|
| Report | Report | Mini Project Report (2500 words) | 50 | |
| Presentation | Case study | Case Study Presentation | 50 | |

Aims

This CPD award aims to provide the student with the theoretical knowledge and practical experience that is required by a forensic scientist in order to identify and examine trace evidence, together with the ability to discuss, critically appraise and assess the results obtained.

Trace evidence such as paint, glass and fibres play a pivotal role in criminal investigations. It is essential for forensic scientists to be able to identify, differentiate and analyse different types of trace evidence as well as to be able to interpret the results. Analysis of the majority of trace evidence begins with advanced microscopic methods and in some cases can end with chemical composition determination.

On completion of the programme the student should be able to identify and differentiate between different types of trace evidence and to be able to interpret the results of their analysis, develop detailed knowledge of a range of advanced techniques used in the analysis of trace evidence and undertake a critical appraisal of the pivotal role and limitations played by trace evidence analysis using a case study.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify and differentiate between different types of trace evidence and to be able to interpret the results of their analysis
- 2 Develop detailed knowledge of a range of advanced techniques used in the analysis of trace evidence.
- 3 Undertake a critical appraisal of the pivotal role and limitations played by trace evidence analysis using a case study

Learning Outcomes of Assessments

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

| | | |
|-------------------------|---|---|
| Mini Project Report | 1 | 2 |
| Case Study Presentation | 3 | |

Outline Syllabus

*Advanced microscopy techniques for the analysis of trace evidence
Chemical ballistics
Advanced fingerprinting*

Learning Activities

Sessions will incorporate lectures, workshops, tutorials and practical sessions.

The 16 hours allocated to lectures within this module include two introductory lectures followed by one on Advanced Fingerprinting, one on Advanced Chemical Ballistics, two on Advanced Microscopy and one specifically to deal with research of the case studies, from which the student will select one on which to base their analysis as part of the assessment.

One of the key themes running through this module will be the development of the skills and knowledge to link theory and professional practice.

The module will utilise blended learning techniques, combining traditional teaching strategies with immersive learning and e-learning.

Students will be encouraged to monitor their own learning in this module, supported by an experienced and knowledgeable mentor, through their Personal Development Plans.

Sessions will incorporate lectures, workshops, tutorials and practical sessions delivered by staff from LCAPS working alongside teaching staff from the university School of Forensic Science, Pharmacy and Biomolecular Sciences, supported by Visiting Lecturers.

Students will be expected to engage in self directed and supported learning to develop their knowledge and the practical application of it. Any issues raised during lectures can be further explored during plenary sessions, within smaller groups, with their allocated mentor and/or the module team.

Notes

Programme code: 35937

There are no professional body requirements at present. Developments of the College of Policing are constantly monitored and incorporated, where appropriate.

Benchmark Statement:

There are no subject benchmarks for police studies but cognisance has been taken of the evolving police professionalisation agenda and where applicable the requirements of the College of Policing, together with appropriate National Occupational Standards for policing set out by Skills for Justice, the Benchmark Statements for Criminology and other QAA Benchmark Statements when appropriate.

Mode and Duration of Study:

This CPD module will be offered on a part time basis and through delivery on-site (at LJMU) or through a blended delivery process incorporating distance learning. However, and of note, this module is not available entirely off-site (UK or overseas) owing to some of the practical elements of its content. Delivery will be supported by the Virtual Learning Environment, Canvas. Whilst the intake month is flexible, with the module being able to commence in semester 1, semester 2 or the summer period, the duration of study will usually be across 18 weeks, with scope to negotiate

with a student or their employing organisation for shorter or longer periods.

Criteria for admission:

The entry requirement is a first degree at 2:2 or above, international equivalent or through RPEL. This CPD module supports the development of police officers and police staff who are directly engaged in crime scene investigation, forensic recovery and submissions. It will also benefit those who will assess and manage such issues as part of their wider remit in conducting the overarching forensic strategy of an investigation.

Name of final award:

Certificate of Professional Development - Trace Evidence Analysis.

Student Support:

The University aims to provide students with access to appropriate and timely information, support and guidance to ensure that they are able to benefit fully from their time at LJMU. All students are assigned a Personal Tutor to provide academic support and when necessary signpost students to the appropriate University support services.

Students are able to access a range of professional services including:

Advice on practical aspects of study and how to use these opportunities to support and enhance their personal and academic development. This includes support for placements and careers guidance.

Student Advice and Wellbeing Services provide students with advice, support and information, particularly in the areas of: student funding and financial matters, disability, advice and support to international students, study support, accommodation, health, wellbeing and counselling.

Students studying for an LJMU award at a partner organisation will have access to local support services.

Assessment Regulations:

All programmes leading to LJMU awards operate within the University's Academic Framework. <https://www.ljmu.ac.uk/about-us/public-information/academicqualityandregulations/academic-framework>

Compulsory attendance requirements:

Students should attend all taught sessions in line with the University's Attendance Policy.

This course was written in 2018.

Methods for Evaluating and Improving Quality:

All programmes leading to LJMU awards have been designed and approved in accordance with the UK Quality Code for Higher Education, including the Framework for Higher Education Qualifications in the UK (FHEQ) and subject benchmark

statements where applicable. The University is subject to periodic review of its quality and standards by the Quality Assurance Agency (QAA) Published review reports are available on the QAA website at www.qaa.ac.uk
Programmes which are professionally accredited are reviewed by professional, statutory and regulatory bodies (PSRBs) and such programmes must meet the competencies/standards of those PSRBs.

The University uses the results of student feedback from internal and external student surveys (such as module evaluations, the NSS and PTES), module evaluation questionnaires and meetings with student representatives to improve the quality of programmes.

The quality of teaching is assured through staff review and staff development in learning, teaching and assessment.

All programmes are reviewed annually and periodically, informed by a range of data and feedback, to ensure quality and standards of programmes and to make improvements to programmes.

The University is maintaining the threshold academic standards set for awards in accordance with the FHEQ and applicable subject benchmark statements. The assessment process measures student achievement rigorously and fairly against the intended outcomes of the programme(s) and is conducted in line with University policies and regulations. The academic standards are comparable with those in other UK higher education institutions of which external examiners have experience.

Alignment for CME:

MSc Advanced Policing (35837) - the same existing arrangements for the full programmes delivered by Science and LCAPS will be used.

Alignment to external examining:

MSc Advanced Policing (35837) - This CPD module will be covered by the same External Examiner.