



## Component Standard Interpretation, Evaluation, and Presentation of Evidence

### **Purpose**

To ensure that students have sufficient knowledge and skills to record evidence and all aspects of hypothesis testing, experimentation, manage data, evaluate and interpret evidence, and effectively present their findings in various legal contexts.

### **General Outcomes**

Interpretation, Evaluation and Presentation of Evidence (IEPE) is at the heart of any forensic course. Irrespective of working at a Crime Scene or in a Laboratory it is critical that IEPE is carried out.

The evaluation of a scene or laboratory submission within a quality management system is important to formulate the forensic strategy and subsequent work. This leads to an interpretation to inform an investigation and ultimately the courts of law in oral or written evidence.

### **The course should be designed to enable the student to:**

1. demonstrate an understanding of relevant legislation, regulation, standards and codes of practice for all aspects of an investigation working within the context of a quality management system, including issues relating to conflict of interest, data protection, confidentiality and legal privilege;  
**MSc - Comprehensive understanding of the underpinning requirements for a forensic practitioner;**  
**Extra information<sup>1</sup>: students should appreciate the currently global accreditation standards (chiefly ISO17020 and ISO17025). Students should have the opportunity to have practical experience of validation studies (see item 4 below).**
2. record observations and experimental methodology in the form of structured notes (including photography) in a logical, comprehensive and contemporaneous manner;  
**MSc - Show a self-critical awareness to the recording of structured notes and communicate the outcome effectively;**  
**Extra information: understand the value of making a forensic strategy in terms of assessment and examination: importantly making appropriate structured notes to enable quick recall at a later date are essential;**
3. demonstrate an understanding of the investigative process and the requirements of continuity of evidence;  
**MSc - Comprehensive understanding of the ‘whole system<sup>2</sup>’ approach to the investigative process;**  
**Extra information: it is important to cover various legal aspects within a given jurisdiction. Within the UK this would include PACE, Criminal Procedural Rules and Criminal Practice Directions covering the legal obligations for the expert witness. This could be covered with case studies from high profile cases;**
4. demonstrate an understanding of safe working practices (personal safety, safety of team members and others present) and the function and practice of quality assurance; validation and peer review;  
**MSc - Deep understanding of issues governing good practice in connection with H&S and Quality;**  
**Extra information: the basic PPE requirements and anti-contamination should be understood; Students should have the opportunity to design, execute and report experimental work suitable for use in forensic method validation studies, and comprehend the context in which such work is carried out in the workplace. For**

<sup>1</sup> Extra information: This represents further suggestions and clarification of the component standard - it is anticipated that this may be changed from time-to-time to reflect developments in forensic practice. The material provided in black can only be changed by the Society's Accreditation Sub-committee.

<sup>2</sup> Here 'whole system' is a term used in the HO Strategy for forensic science and here means the *relevant legislation, regulation, standards and codes of practice for all aspects of an investigation, including issues relating to conflict of interest, data protection, confidentiality and legal*

general guidance on forensic method validation see the Forensic Science Regulator, *Codes of Practice and Conduct for Forensic Science Providers and Practitioners in the Criminal Justice System*.

5. evaluate and interpret data from appropriate equipment applied to a range of forensic examinations. Include the use of statistical tests to aid interpretation;  
MSc - Be confident in the ability to interpret complex technical information in a wide variety of investigative situations;  
Extra information: it is important to understand the theory, ideally hands-on and a range of analytical procedures, specifically within the forensic context;
6. demonstrate an understanding of how to set up a series of suitable tests or a series of case-related experiments for hypothesis testing to aid in the interpretation of analytical results;  
MSc - Have an open and innovative attitude to plan and execute various hypothesis with minimum supervision or be self-directing and original in applying and adapting problem-solving skills to unfamiliar, complex and open-ended hypothesis;  
Extra information: this is most likely to be part of the student project but can also be incorporated within the wider programme.
7. demonstrate the ability to effectively identify and search relevant proprietary and open databases, including, where appropriate, frequency of occurrence of evidential materials to support interpretation;  
MSc – Able to use a full range of learning sources to provide data and show a conceptual understanding that will enable critical evaluation;  
Extra information: many databases are free to download and you may also have created your own local database to support evaluation and interpretation. The student should appreciate the role of databases to support evaluation and interpretation ideally with the Bayes theorem.
8. write robust, balanced, impartial, logical and transparent reports which are unbiased, comprehensive and comprehensible for the intended recipients;  
MSc - Show a balanced and unbiased approach to writing while at the same time communicating effectively to a range of readers;  
Extra information: this should incorporate court reports and witness statements ideally building year on year through the course – commonly referred to as the ‘scaffolding approach’;
9. demonstrate good oral and presentational skills which are understandable to the intended recipients;  
MSc - Can engage confidentially in professional communications with others, reporting clearly, autonomously and competently;  
Extra information: there are various means by which this can be achieved and an appropriate mix of opportunities for students to demonstrate these skills is expected of courses that are awarded Educational Accreditation. Amongst these opportunities should be a mock court situation in which all students are expected to give evidence and be cross-examined on that evidence. Exception may be made for students with disabilities provided that such students are given an appropriate alternative opportunity to demonstrate these skills.
10. demonstrate professionalism by effective working as part of an investigative team, how the scope of an investigation, the roles of others and how the methods they employ, may affect the forensic strategy.  
MSc- Work effectively as leader or member, can clarify tasks and make appropriate use of capabilities of group members to deliver an overall strategic way forward and can negotiate and handle conflict with confidence.  
Extra information: ideally students should have the opportunity to role play following a major incident set up as a practical scene to lab assessment.