1. **Title of the module**

PSCI3010 (PS301) - Introduction to Forensic Science

1. **School or partner institution which will be responsible for management of the module**

Physical Sciences

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 4

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Spring

1. **Prerequisite and co-requisite modules**

None

1. **The programmes of study to which the module contributes**

BSc/BSc with Foundation Year/BSc with Year in Industry/MSci Forensic Science

This is available as a wild module.

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to:**

Have:

1. Knowledge and understanding of core and foundation scientific physical, biological, and chemical concepts, terminology, theory, units, conventions, and laboratory methods in relation to forensic science. (1)
2. Areas of chemistry (including analytical chemistry, fires and explosions,) as applied to forensic analysis. (3)
3. Areas of biochemistry, human DNA. (4)
4. Numeracy (including data analysis and statistics), forensic investigation and interpretation (including image analysis, forensic archaeology, ballistics, interrogation, and the extraction, analysis, interpretation of physical evidence) and apply them to forensic examination and analysis. (5)
5. Incident investigation, evidence recovery, preservation, and presentation as an expert witness within the judicial environment. (6)
6. Ability to demonstrate knowledge and understanding of essential facts, concepts, principles and theories relating to forensic science and to apply such knowledge and understanding to the solution of qualitative and quantitative problems. (8)
7. Evidence recovery, preservation, analysis, and presentation to professional standards. (20)
8. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**

Have a knowledge and understanding of:

1. Communication skills, covering both written and oral communication. Self-management and organisational skills with the capacity to support life-long learning. (21)
2. Problem-solving skills, relating to qualitative and quantitative information, extending to situations where evaluations have to be made on the basis of limited information. (22)
3. Numeracy and computational skills, including such aspects as error analysis, order-of-magnitude estimations, correct use of units and modes of data presentation. (23)
4. Information-retrieval skills, in relation to primary and secondary information sources, including information retrieval through on-line computer searches. (24)

1. **A synopsis of the curriculum**

Forensic Science; evidence and the scene of the crime.

What is forensic science? Historical and legal background of forensic science – exchange principles and linkage theory.. Identification, characterisation, recovery and weighting of trace evidence types. Crime scene searching methodologies; the integrity and continuity of evidence. Introduction to laboratory testing dealing with glass, tool-mark, footwear mark and tyre impressions. The management of scientific support at crime scenes. Procedures at crime scenes illustrated by reference to crimes of burglary, murder and sexual offences. Fingerprint history, classification, recovery and chemical enhancement of fingermarks. Practical applications of blood pattern analysis Sexual offence investigation and body fluid identification. Clinical indicators of death and murder scene investigation.

Drug Abuse, alcohol and forensic toxicology.

Drugs of abuse and their identification. Drugs, alcohol poisons and their metabolism. Toxicology and the role of the forensic toxicologist. Qualitative and quantitative laboratory analysis.

Document examination:

Signature and handwriting identification. Paper, inks and printed documents. Damage characterisation.

Fires and Explosions:

Arson. Fire and combustion. Types of explosives and the nature of explosions. The crime scene investigation: sampling and laboratory analysis.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**
* Crime Scene to Court, the Essentials of Forensic Science, 3rd edition, White, P. (ed.) (2010)
* Forensic Science, 3rd edition, Jackson, A.R.W. & Jackson J. M. (2011)
* Criminalistics, 10th edition, Saferstein, R. (2011)
1. **Learning and teaching methods**

Total contact hours: 28

Private study hours: 122

Total study hours: 150

1. **Assessment methods**
	1. Main assessment methods

Online Moodle assignment - one hour duration (25%)

Online Moodle examination - two hour duration (75%)

13.2 Reassessment methods

Like-for-like

1. **Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *8.5* | *8.6* | *8.7* | *8.8* | *8.9* | *9.1* | 9.2 | 9.3 | 9.4 |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Private Study | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Lectures | x | x | x | x | x | x | x | x | x | x | x | x | x |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MCQ tests | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Examination | x | x | x | x | x | x | x | x | x | x | x | x |  |

1. **Inclusive module design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

The internationalisation focus of this module is achieved by utilising techniques and information beyond the UK.

**FACULTIES SUPPORT OFFICE USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 10/07/2019 | Minor | January 2020 | 8, 10, 13 |  |
|  |  |  |  |  |