

1. **KentVision Code and title of the module**

PSCI6370 (PS637) – DNA Analysis & Interpretation

2. **Division and School/Department or partner institution which will be responsible for management of the module**

Division of Natural Sciences (Forensic Science/Chemistry)

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

Level 6

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

15 credits (7.5 ECTS)

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

Spring

6. **Prerequisite and co-requisite modules and/or any module restrictions**

None

7. **The course(s) of study to which the module contributes**

Compulsory for the following courses:

BSc (Hons) Forensic Science (including Year in Industry and Year Abroad variants)

MSci Forensic Science

Optional for the following courses:

BSc (Hons) Chemistry (including Year in Industry and Year Abroad variants)

MChem Chemistry

Not available as an elective module

8. **The intended subject specific learning outcomes.**

On successfully completing the module students will be able to:

8.1 Demonstrate knowledge and understanding of core biological concepts, terminology, theory, units, conventions, and methods, including knowledge of cells, biochemistry and human DNA;

8.2 Demonstrate knowledge and understanding of concepts, principles & theories of DNA & forensic genetics, and ability to apply such knowledge and understanding to the solution of qualitative and quantitative problems in the area of DNA;

8.3 Use skills required for, and knowledge of, the analysis of forensic DNA;

8.4 Interpret data derived from laboratory observations and measurements in terms of their underlying significance and the theory underpinning them;

8.5 Display skills in the safe handling of chemicals, taking into account their physical and chemical properties, including any hazards associated with their use and to risk assess such hazards.

9. The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 9.1 Recognise and implement good measurement science and practice.
- 9.2 Solve problems, relating to qualitative and quantitative information, extending to situations where evaluations have to be made on the basis of limited information.
- 9.3 Use information-retrieval skills, in relation to primary and secondary information sources, including information retrieval through on-line computer searches.

10. A synopsis of the curriculum

This module comprises a range of contemporary topics covering methods of analysis and the interpretational issues associated with forensic DNA profiling. The materials take students through the evolution of forensic DNA processes and the practical issues of sample collection, processing and storage, DNA theory and practical DNA processing. Students will appreciate the difficulties associated with mixed samples and the statistical interpretation associated with both single source and mixture interpretation. The module draws upon the latest materials published by the Forensic Science Regulator and the latest quality and legal standards associated with DNA profiling. The module is contextualised throughout using a range of contemporary case studies.

11. Reading list

The University is committed to ensuring that core reading materials are in accessible electronic format in line with the Kent Inclusive Practices.

The most up to date reading list for each module can be found on the university's [reading list pages](#).

12. Contact Hours

Private Study: 122

Contact Hours: 28

Total: 150

13. Assessment methods

13.1 Main assessment methods

- Genotyping Exercise (2 pages) – 10%
- Lab Write-up (2 pages) – 10%
- Examination (3 hours) – 80%

13.2 Reassessment methods

Like-for-like

14. **Map of module learning outcomes (sections 9 & 10) to learning and teaching methods (section 13) and methods of assessment (section 14)**

Module learning outcomes against learning and teaching methods:

Module learning outcome	8 1	8 2	8 3	8 4	8 5	9 1	9 2	9 3
Private Study	x	x	x	x	x	x	x	x
Lecture	x	x	x	x	x			
Laboratory	x	x	x	x	x	x	x	x

Module learning outcomes against assessment methods:

Module learning outcome	8 1	8 2	8 3	8 4	8 5	9 1	9 2	9 3
Genotype Exercise	x	x	x	x	x	x	x	x
Lab Write-up	x	x	x	x	x	x	x	x
Examination	x	x	x	x		x	x	

15. **Inclusive module design**

The Division 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

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

Canterbury

17. **Internationalisation**

Science is an international discipline with widely applicable international resonance. This module presents subject-specific knowledge generated, developed, and refined by scientists around the world. Mastery of the learning outcomes will equip students to apply the knowledge in a wide range of international contexts and these will be addressed in making the content relevant to current global issues. The Division of Natural Sciences is an international community of students and staff and group activities and teaching will provide a platform for internationally-focused discussion.

DIVISIONAL USE ONLY

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

Date approved	New/Major/minor revision	Start date of delivery of (revised) version	Section revised (if applicable)	Impacts PLOs (Q6&7 cover sheet)
28 Feb 2019	Major	Sept 2019	8-9,11,13	No
9 Dec 2021	Minor	Sept 2022	5, 10, 12-13	No

Revised FSO Jan 2018
