|  |  |  |
| --- | --- | --- |
|  | **YES** | **NO** |
| 1. New module (if yes, complete numbers 3-8, 10-14)Title of module:
 |  | X |
| 1. Revised module (if yes, complete numbers 3-14)Title and SDS/KV codes: Introduction to Ballistics - PS324/PSCI3240
 | X |  |
| 1. State which stage this module will be applicable to (information required by KentVision) : Stage 1
 |
| 1. Is this module (or any consequently withdrawn modules) compulsory in any programmes

 (i) in the School which owns the module?  | X |  |
|  (ii) in programmes owned by other Schools?  |  | X |
| 1. Does the introduction/revision of this module, or the withdrawal of other modules, potentially require changes to those programmes?
 | X |  |
| 1. If so, are those potential changes the result of:

 (i) Changes to the Learning Outcomes of this module?  |  |  |
|  (ii) Changes to the term(s) in which this module is delivered? |  |  |
|  (iii) Changes to pre- and co-requisite modules? |  |  |
|  (iv) Other (please specify): Curriculum Review | X |  |
| 1. If the answer to any of questions 4.2 to 6 is Yes - confirm that all the owners of the programmes listed in section 7 of the specification have been informed
 | X |  |
| 1. Will any modules be withdrawn as a result of the introduction of this module/changes to the module? *If yes, please provide the module code and title and information required (see Annex B of the Code of Practice* [*https://www.kent.ac.uk/teaching/qa/codes/taught/annexb.html*](https://www.kent.ac.uk/teaching/qa/codes/taught/annexb.html)*)*
 |  | X |
| 1. Please indicate which sections of the specification have been revised. NB the approval panel will look at the whole specification and may comment on sections that have not been revised in this submission
 |  |
| 1  | 2  | 3  | 4  | 5 X | 6  | 7 X | 8 X |
| 9 X | 10 X | 11  | 12  | 13 X | 14 X | 15  | 16  |
| 17 X | 18  | 19 |  |  |  |  |  |
| 1. Are there any implications for learning resources, including staff, library, IT and space? If yes, please confirm the School has considered and planned for the allocation of the resources required
 |  | X |
| 1. Term and year the revised version/new module will start:

Term 2 2021-22 |
| 1. Date this version of the module specification was approved by the School EC or GSC (and Board of Studies if appropriate):

April 2020 |
| 1. Rationale: please provide any contextual information that will assist members of the approval panel who may not be familiar with the discipline and custom and practice in your School:

This module update is in response to a full and formal curriculum review within the School of Physical Sciences. The outcome of this is the recommendation that practical modules and lecture-based modules be separated to provide a more consistent learning experience for the students and aid time and workload management. |
| 1. Please provide any additional information that may assist the approval panel, for example the rationale for assessment or an explanation of the learning and teaching methods if these vary from a commonly seen pattern:

The assessment and teaching is in accord with the recommendations from the curriculum review to provide a consistent assessment pattern across all modules where possible. |
| 1. High risk of non-delivery: confirm that more than one person is available to teach this module and that the School Plan includes consideration of resources, cover and succession planning
 | X |  |
| 1. School/Faculty to confirm that consideration has been given to the title and curriculum description to ensure these are not overly constraining
 | X |  |

1. **Title of the module**

Introduction to Ballistics (FSCI3080/FS308)

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

School of 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)**

Term 2

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

None

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

BSc(Hons) Forensic Science

BSc(Hons) Forensic Science with a Year in Industry

BSc(Hons) Forensic Science with a Year Abroad

BSc(Hons) Forensic Science with a Foundation Year

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:**

1. Demonstrate an ability in Newtonian mechanics relating to the flight of projectiles.
2. Demonstrate knowledge of firearm mechanisms.
3. Demonstrate knowledge of firearm ammunition.
4. Demonstrate basic applications of forensic science to ballistics.
5. Demonstrate an appreciation of social and political influences of firearms on society.
6. **The intended generic learning outcomes.**

**On successfully completing the module students will be able to:**

1. Demonstrate a range of mathematical abilities.
2. Demonstrate a range of communication skills.
3. Demonstrate skills in research and the use of scientific literature.
4. **A synopsis of the curriculum**

This module introduces students to the mathematical, physical, social and legal concepts that underpin academic study in the field of forensic ballistics.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**
* Understanding Firearm Ballistics, R.A. Rinker. Mullberry Hs, USA ISBN 0-9645598-4-6
* Handbook of Firearms and Ballistics, Brian Heard, Wiley Blackwell. ISBN 0470694602
* Small Arms, Derek Allsop & M Toomey, Brassey's (UK) Ltd. ISBN 1857532503
1. **Learning and teaching methods**

Total contact hours: 24

Private study hours: 126

Total study hours: 150

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

|  |  |
| --- | --- |
| Online Quiz (2 hours) | 20% |
| Presentation (10 minutes) | 40% |
| Written Assessment (500 words) | 40% |

13.2 Reassessment methods

100% by Coursework

1. **Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section 12) and methods of assessment (section 13)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 8.6 | 9.1 | 9.2 | 9.3 |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |
| Lectures | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  | **X** |
| Private Study | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |
| Online Quiz  | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  | **X** |
| Presentation  | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| Written Assessment | **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**

Forensic science is an inherently international subject with physical laws discovered and techniques developed and refined by scientists across the globe. It is facilitated by well-defined conventions in terminology and mathematical modelling which allow complex concepts to be communicated across language barriers. This module introduces students to the work of these pioneers, as well as the fundamentals behind it and so enables them to interact with this community. Where possible, the reading list has been chosen, in part, to demonstrate the diversity of backgrounds of forensic scientists working in the field.

**DIVISIONAL 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 delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| Jan 2021 | Major | Sept 2021 | 5;7;8;9;10;13;14;17 | Yes |
|  |  |  |  |  |