1. **Title of the module**

BIOS8380 (BI838) - Genomic Stability and Cancer

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

Biosciences

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

Level 7

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**

MSc Cancer Biology

MSc Biomedicine (optional)

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

Have a knowledge and understanding of:

1. Endogenous and exogenous sources of DNA damage and their relationship with cancer incidence.
2. Key mechanisms involved in maintaining genomic integrity.
3. The relevance of the biological response to DNA damage to disease incidence and therapy.
4. Biological investigation of DNA damage and its repair.
5. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**
6. Organise information clearly, present information in oral and written form, adapt presentation for different audiences.
7. Interpret data, marshal of information from published sources, critically evaluate own research and that of others.
8. Make use of constructive informal feedback from staff and peers and assess own progress to enhance performance and personal skills.
9. Manage time and workload in order to meet personal targets and imposed deadlines.
10. Make use of appropriate technology to retrieve, analyse and present scientific information.
11. **A synopsis of the curriculum**

This module introduces and develops knowledge in the key area of genomic maintenance. Students will learn how loss of genomic integrity leads to enhanced cancer incidence, and how biological processes and the environment contribute to genetic instability. Cellular mechanisms that lead to cancer incidence, together with those that protect cells from the onset of carcinogenic processes will be reviewed. This module will also examine the use of DNA damaging agents in cancer therapies, reviewing the most recent literature in this field.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

DNA Repair and Mutagenesis, Friedberg et al, ASM Press (Second Edition)

The Biology of Cancer, Weinberg, Garland Science (Second Edition)

1. **Learning and teaching methods**

Total contact hours: 27

Private study hours: 123

Total study hours: 150

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

Critical analysis essay (2,500 words, 50%)

Exam (2 hours, 50%)

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* | *9.1* | *9.2* | *9.3* | *9.4* | *9.5* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |
| **Private Study** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| *Seminars* | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |
| *Critical analysis essay* | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| *Exam* | **X** | **X** | **X** | **X** | **X** |  |  | **X** |  |

1. **Inclusive module design**

The Schoolrecognises 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**

Biosciences is an international discipline. This module presents subject-specific knowledge, research approaches and techniques, generated, developed and refined by scientists around the world. Mastery of the learning outcomes will equip students to apply the theories and techniques of the module in a wide range of international contexts. In compiling the reading list, consideration has been given to the range of texts that are available internationally and a selection has been identified to complement the delivery of the material. The School of Biosciences is an international community of students and staff. Group work and self-study will naturally draw on the international make-up of the student body; the module teaching team includes members with international experience of teaching and research collaboration.

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

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| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
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Revised FSO Jan 2018