1. **Title of the module**

BIOS6060 (BI606) Pathogens and Pathogenicity

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

School of Biosciences

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

Level 6

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)**

Autumn

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

Prerequisite: BI505 Infection and Immunity

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

BSc Biomedical Science and related programmes (compulsory)

BSc Biology and related programmes (optional)

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

8.1 Demonstrate an understanding and knowledge of the molecular basis of microbial pathogenesis in relation to bacterial, viral, parasitic and fungal pathogens.

8.2 Comprehend, assimilate and present data and concepts on a pathogenesis-related topic.

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

9.1 Demonstrate the ability to understand, analyse and assess published scientific data.

9.2 Assess presented scientific data and concepts, providing constructive feedback.

9.3 Demonstrate written communication skills.

1. **A synopsis of the curriculum**

**Eukaryotic pathogens;** mechanisms ofpathogenesis; transmission and diversity

**Bacterial pathogens:** virulence factors including toxins and adhesins.

**Viral pathogens:** mechanisms of pathogenesis and avoidance mechanisms; viruses and cancer.

**Human fungal pathogens:** mechanisms of transmission and epidemiology; virulence factors;host resistance mechanisms

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**
* Mims, CA, The Pathogenesis of Infectious Diseases, 6th ed. (Academic Press, 2015)
* Fields, BN, Knipe DM, Howley PM, Fundamental Virology, 5th ed. (Lippincott-Raven, 2007)
* Wilson BA, Salyers, AA, Whitt, DD, Bacterial Pathogenesis, A Molecular Approach, 3rd ed. (ASM Press, 2011)
* Wilson M, The Human Microbiota in Health and Disease: An Ecological and Community-based Approach, 1st ed. (CRC press, 2018)

NB: The rest of the suggested reading will consist of review articles and primary research publications.

1. **Learning and teaching methods**

Total contact hours: 20

Private study hours: 130

Total study hours: 150

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

Written assessment (2000 - 2500 words): 35%:

Exam (2h): 65%

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*** | ***9.1*** | ***9.2*** | ***9.3*** |
|  |  |  |  |  |  |
| **Learning/ teaching method** |  |  |  |  |  |
| Lectures | **X** | **X** |  |  |  |
| Private study | **X** | **X** | **X** | **X** | **X** |
| **Assessment method** |  |  |  |  |  |
| Written assessment | **X** | **X** | **X** | **X** | **X** |
| Exam | **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**

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 activities in problem solving sessions, revision sessions, workshops 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.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 21 Dec 18 | Major | Sept 2019 | 2,6,7,8,9,10,11,13,14 |  |
| 20/10/20 | Minor | Sept 2020 | 11, 13 | No |