| General Information  |
|--|
| Module Code  |
| BIO-6010B  |
| Academic Year  |
| 2021/2   |
| Module Title   |
| INFECTION AND IMMUNITY                                     |
| Module type  WW  |
|  |
| Semester / Term SEM2                                       |
|  |
| <b>Level</b> 6   |
| Credit Value   |
| 20   |
| Scheme   |
| UG   |
| Related Modules:   |
|  |
|  |
| Pre-requisite  |
| BIO-5015B OR TAKE BIO-5005B                                |
| Co-requisite Co-requisite                                  |
| Forbidden  |
|  |
|  |
| Timetable slot   |
| #BIO-5015B OR #BIO-5005B                                   |
| Is this module suitable for inbound study abroad students? |
| Y  |
| Additional costs   |

#### Maximum number of students

999

## **Module Organiser**

Dr Gary Rowley

# Module Description

#### What is this module about?

This module provides a detailed coverage of the biology of selected infectious microorganisms, in the context of host and responses to pathogens. The properties of organs, cells and molecules of the immune system are described, along with the mechanism of antibody diversity generation, and the exploitation of the immune response for vaccine development. Examples of pathogens are used to illustrate major virulence strategies.

# Learning objectives and Outcomes

### What are the Learning objectives?

The learning objectives are: 1) to provide a detailed coverage of the biology of selected infectious microorganisms, in the context of host and responses to pathogens. 2) to provide a detailed coverage of the properties of organs, cells and molecules of the immune system will be described. 3) to demonstrate the impact of genomics on the study of infection, and on mechanisms used by pathogens to evade host responses will be discussed.

### What are the Learning Outcomes?

#### Name Details

1

The overall make-up of the cells and organs of the human immune system

2

Molecular approaches to the study of bacterial pathogenicity

3

The biology of a representative group of pathogenic bacteria, viruses and fungi

# Learning activities and Effort hours

#### Learning activity

Total effort Indicative effort hours per week

| Learning activity  | Total effort<br>hours | Indicative effort hours per week |
|--|-----------------------|----------------------------------|
| 1. Class sessions (Lectures, workshops, lab sessions, seminars etc.)                               | 30                    | 30                               |
| 2. Pre-class preparation and follow up study   | 5                     | 5                                |
| 3. Work-based or Placement Hours   | 0                     | 0                                |
| 4. Formative assessments/ activities   | 5                     | 5                                |
| 5. Feedback/ Feed forward sessions   | 5                     | 5                                |
| 6. Summative assessments (essays, dissertations, oral presentations, worksheets, lab reports etc.) | 20                    | 20                               |
| 7. Background reading  | 15                    | 15                               |
| 8. Exams/ OSCEs  | 20                    | 20                               |
| 9. Course Tests  | 0                     | 0                                |
| 10. Tutorials (Individual or small groups)   | 0                     | 0                                |
| Total Hours =  | 100.00                | 100.00                           |

| Learning | Support | Materials  |
|----------|---------|------------|
| Loaming  | Cappoit | Midtolidio |

Should this module be exempt from requiring an online reading list?

Υ

Link to Talis (https://uea.rl.talis.com/index.html)

## Formative Assessments

| Sequence | Assessment Type | Title | Deadline |
|----------|-----------------|-------|----------|
| •        | <del>-</del> -  |       |          |

# **Summative Assessments**

| Sequence           | Assessment<br>Type    | Title                     | Deadline | Weighting | Method of submission | Method<br>of<br>return | Return<br>date | Format and purpose of feedbac |
|--------------------|-----------------------|---------------------------|----------|-----------|----------------------|------------------------|----------------|-------------------------------|
| 001                | Written<br>Assignment | Poster                    |          | 15 / 100  |                      | VIA<br>HUB             |                |                               |
| Further<br>Details |                       |                           |          |           |                      |                        |                |                               |
| 002                | Written<br>Assignment | Essay<br>(2,000<br>words) |          | 25 / 100  |                      | VIA<br>HUB             |                |                               |
| Further<br>Details |                       |                           |          |           |                      |                        |                |                               |
| 003                | Exam<br>Standard      | Examination               |          | 60 / 100  |                      |                        |                |                               |
| Further<br>Details |                       |                           |          |           |                      |                        |                |                               |
|                    |                       |                           |          |           |                      |                        |                | )                             |

## Attribute Development

On this module students will develop knowledge, insights and attributes that are readily transferable into future or current work settings. The attributes are articulated below to help understand how the module will help students to thrive on their course and prepare them for the world of work. These attributes are also articulated within the UEA Award.

#### Academic excellence

- In-depth and extensive knowledge, understanding and skills in chosen discipline(s)
- The ability to collect, collate, analyse and critically engage with a wide range of information sources, and evidence
- The ability to analyse and critically engage with a wide range of concepts and ideas

### Critical thinking & problem solving

- A capacity for independent, conceptual and creative thinking
- A capacity for informed argument and logical reasoning
- A capacity for problem identification and problem-solving

| Learning & personal development  |
|--|
| A commitment to developing professional values, self-insight and capabilities  |
| The ability to respond positively to constructive criticism and feedback from peers, tutors and colleagues                               |
| Self-confidence and an ability to exercise own 'voice'   |
| Digital literacy and IT  |
| Confidently employ a range of digital technologies for academic and professional/ career development purposes                            |
| Use appropriate digital technologies and resources to locate diverse types of information for both academic and<br>non-academic purposes |
| ☐ The ability to critically evaluate and engage with the information obtained  |
| Self-management & professionalism  |
| A capacity for taking responsibilities and ownership of actions  |
| An ability to manage time effectively, including setting priorities, juggling competing demands and meeting deadlines                    |
| An understanding of work cultures and practices, including work place professionalism  |
| Team working and leadership  |
| An ability to co-operate and collaborate with others, including working to shared aims   |
| An ability to take other viewpoints, have empathy for other people's position and give constructive feedback                             |
| An ability to motivate and lead others, including taking the initiative and delegating when required                                     |
| Communication  |
| An ability to communicate in written form for different purposes, audiences and contexts   |
| An ability to communicate in person for different purposes, audiences and contexts   |
| An ability to network effectively with others for specific purposes  |
| Applied numeracy and Technical proficiency   |
| An ability to perform routine calculations in daily tasks and in applied contexts  |
| An ability to analyse and interpret data and evidence  |
| Proficiency in skilled techniques used for academic and professional purposes  |
| Career management  |
| A capacity to reflect on and articulate qualities, strengths and attributes  |
| ☐ The ability to research specific job and career areas  |
| An ability to present your experience and attributes positively to graduate employers  |
| Commercial awareness   |
| A knowledge of the link between academic subjects and their commercial applications  |

| An understanding of business priorities and the needs of graduate employers                     |
|---|
| ☐ The ability to understand and prioritise customer needs                                       |
| Innovation and enterprise   |
| ☐ The confidence to introduce and establish something new                                       |
| ☐ The potential to take an idea through to its practical application                            |
| ☐ The potential to apply an enterprising mind-set to situations                                 |
|   |
| Citizenship and stewardship   |
| Citizenship and stewardship  An understanding of your place within local and global communities |
|   |