

Infectious Disease

Postgraduate Diploma & MSc Courses



THE UNIVERSITY OF
BUCKINGHAM



Year 1

Year 1, comprising of 6 modules, each of 6 weeks duration, is designed to be practical and clinically focused. The course is designed to be practical and clinically focused.

Year 2

The MSc runs over 2 calendar years, with the first year comprising of the Postgraduate Diploma. The second year starts with an initial 10 week online module to develop skills in critical appraisal and knowledge of research methodologies. Students then complete the professional project module.

Why study Infectious Disease with us?

Our Infectious Disease Postgraduate Diploma and MSc are delivered entirely online and are completely flexible to fit around your other commitments.

Global outbreaks of infectious diseases such as Ebola, SARS and the current Covid-19 pandemic provide potent reminders that infectious diseases remain a present and real danger to the health of the world.

Increasing global travel, the continued emergence of new infectious diseases, antibiotic-resistant organisms, and a growing population, the role that infectious diseases specialists will have in the health of everyone in society is highly likely to increase significantly.

This programme in Infectious Disease aims to give healthcare professionals the skills, confidence and knowledge to improve patient care and outcomes in this globally significant area of medicine.



Our courses in infectious diseases empowers healthcare professionals to combat global health challenges. By learning from world-class experts and collaborating with peers from diverse backgrounds, you'll gain the knowledge and skills necessary to protect vulnerable populations and strengthen healthcare systems worldwide.

Dr Owen Seddon, Learna | Diploma MSc Programme Leader



Infectious Disease Postgraduate Diploma

Course Modules - Year 1

Our online Infectious Disease Postgraduate Diploma allows you to study for just one calendar year and is a part-time, distance-learning course. The course is worth 120 credits and comprises six modules of 20 credits, each running over a period of six weeks

Module 1 - Key concepts in infectious diseases

Aim of the module:

- To develop an understanding of the immune system, basic biology of different pathogen classes and the interaction between them, in order to underpin and inform the remainder of the course modules.

Synopsis of module content:

- Introduction
- The Immune System
- Basic biology of bacterial, viral and fungal pathogens
- Pathogenesis of infection
- Modes of transmission
- Diagnosis of infection

On completion of this module, students will be able to:

1. Describe the different immune responses to infection, a broad understanding of host pathogen interaction and the dynamics of infection
2. Understand how the basic biology of the pathogen dictates modes of transmission and diagnostic techniques

Module 2 - Bacterial Infections

Aim of the module:

- Explore in more detail common clinical presentations in bacterial infections and specifics of therapy related to bacterial infection.

Synopsis of module content:

- Sepsis, SIRS
- Neurological, respiratory and bone joint
- Urogenital, intra abdominal and cardiovascular
- Antibiotic therapy
- Mechanisms of resistance
- Mycobacterial infections

On completion of this module, students will be able to:

1. Describe the management of bacterial infections causing a spectrum of disease in different organ systems, including bacterial and mycobacterial infection.
2. Describe the mechanisms of action and key pharmacology of antibiotic therapy, and the principal resistance mechanisms resulting in failure of therapy

Module 3 -Viral Infections

Aim of the module:

- Explore in more detail common clinical presentations in viral infections and specifics of antiviral and antiretroviral therapy

Synopsis of module content:

- Respiratory viral infections
- Viral rashes and exanthem
- EBV and CMV
- Viral Hepatitis
- HIV infection
- Antiviral therapy

On completion of this module, students will have:

1. Describe the presentation, diagnostics and management for viral infections causing clinically relevant disease, including and in depth understanding of viral hepatitis and HIV infection.

2. Describe the mechanisms of action and key pharmacology of antiviral therapy, and antiretroviral therapy.

Module 4 - Mycology, Parasitology and Travel-Related Infection

Aim of the module:

- Explore in more detail common clinical presentations for major fungal pathogens. Understand the investigation and treatment of tropical disease and travel associated infection, with a major emphasis on malaria.

Synopsis of module content:

- Candida
- Aspergillus
- Endemic mycoses
- Malaria
- Neglected tropical diseases
- Pretravel medicine and Fever in returning travellers

On completion of this module, students will be able to:

1. Describe the presentation, diagnostics and management for fungal infections causing clinically relevant disease, including and in depth understanding of diagnostics and antifungal therapy.

2. Be able to describe an approach to the assessment of the patient in pre travel clinic, and following return from travel with symptoms of infection. Understand the common pathogens.



Doing a course, all online is a lot more convenient for me around my clinical role so that's why I chose to study with Learn... I really like how flexible the course was, I liked the freedom I got with the professional project and I was well supported throughout the whole 2 years!

- Lisa Jayne Edwards, Medical Education MSc graduate

Module 5 - Epidemiology, public health, infection control and pandemics

Aim of the module:

- This module will encourage a deeper understanding of the surveillance and reporting mechanisms around communicable disease, and population level disease prevention strategies including vaccination and infection control.

Synopsis of module content:

- Epidemiology, surveillance and notifiable disease
- Vaccination and disease prevention
- Antimicrobial resistance and stewardship
- Key concepts in IPC
- Outbreak management
- Pandemics and COVID-19

On completion of this module, students will be able to:

1. Be able to describe the use and value of infectious disease surveillance systems and have an understanding of public health notification and follow up.
2. Be able to define key concepts in IPC including stewardship, outbreak management and Healthcare acquired infection.

Module 6 - Infections in special groups

Aim of the module:

- Explore in more detail infections in some of the key groups in clinical practice, and investigation of some common infectious disease conundrums.

Synopsis of module content:

- Opportunistic infection in HIV infection
- Congenital immunodeficiencies
- Solid organ and bone marrow transplants
- Infections in Pregnancy
- Pyrexia of unknown origin
- Infections at the extremes of age

On completion of this module, students will be able to:

1. Explain the presentation and management of infections in HIV infection, pregnancy and the extremes of age.
2. Describe a rationale approach to the investigation of possible congenital immunodeficiencies and pyrexia of unknown origin.



"When I enrolled into the course I had no idea about the opportunities it would provide me with. Having my first paper published through this course helped me overcome my apprehensions of academic writing and made me more confident to pursue it further. "

Rutu Dave

Infectious Disease MSc

Course Modules - Year 2

Module 7 - Research Methodologies and Critical Appraisal

Aim of the module:

- To help students recognise, understand, interpret and apply methods used in healthcare research and critically appraise the various methodologies.

Synopsis of module content:

- Terminology used in epidemiology and research studies such as prevalence, incidence, sensitivity, specificity, false positive and false negatives.
- Interpreting graphical representation of epidemiological and statistical data such as Kaplan-Meier curves, forest plots and meta-analyses.
- Calculations used in the assessment of research data such as relative risk, absolute risk and number needed to treat. Statistical tests and their applications including t-tests, ANOVA and chi-square.
- Qualitative research methods.
- Fundamentals of evidence-based practice and its application into the clinical setting.
- Principles of health economics, audit and quality improvement/assurance systems.
- Establishing patient registers and the value of disease-specific registers.
- Research into educational principles for both healthcare practitioner and patient.

Learning Outcomes

1. Select and apply different methodological perspectives and tools to answer research questions.
2. Critically analyse and interpret research.

Module 8 - Professional Project

Aim of the module:

- To develop students' ability to critically appraise specific areas of clinical, research and/or organisational practice and develop skills in independent research, study and writing for publication.

Synopsis of module content:

- Literature review and appraisal of the evidence.
- Audit of practice including organisational or clinical.
- Review and implementation of evidence-based practice.
- Qualitative or quantitative research (formal research involving human subjects is not anticipated).
- Case(s)-based and quality of service review with critical appraisal.
- Case report, review of literature and organisational assessment.



Teaching Methods

Our courses are conducted entirely online through our online learning platform. However, you will receive guidance throughout with tutor-stimulated academic discussions, which are based on clinically-rich case scenarios. These usually occur within groups of 10-15 students, allowing you to clearly communicate with both your tutor and fellow students.

You will participate in a combination of group and individual activities, which are recorded in a reflective journal. This innovative teaching method enables you to envisage the translation of your studies into your every day work and practice.

Our dedicated Student Support Team are also available to help with any problems you may face. From navigating our online platform to advising you on deadlines, our team can assist with any questions or challenges you may have along the way.

Study skills week

Once you have secured your place on the course, you will be required to attend our Study Skills week. This will give you the opportunity to participate in workshops on Harvard referencing, scientific and reflective writings, and levels of evidence in preparation for your studies. It is compulsory for you to attend this induction, as it'll provide you with a sturdy introduction to the course.

Infectious Disease Postgraduate Diploma

Entry Requirements

Documents required:

- A copy of your updated CV including your address and date of birth.
- A copy of your undergraduate degree certificate.
- The name and email address of someone who is able to provide a reference. This can be a work colleague, employer or former tutor.
- A detailed personal statement explaining why you would like to undertake the course.

Applicants should submit copies of the following with their application:

Proficiency in the English language is also essential to completing our courses. If English is NOT your first language, we ask for proof of competency during the application process. We are able to accept an IELTS overall score of 6.5 (with a minimum of 6.0 for each band) or an equivalent qualification.

Since our courses are conducted entirely online, they are accessible to both UK and international registered healthcare professionals.

Applicants will typically hold a first degree or equivalent (including international qualifications) in a relevant professional healthcare field, such as a medical or nursing degree. Registered healthcare professionals without these recognised qualifications will be considered on an individual basis and a wide range of prior experience may be taken into account.

In some cases, applicants may be asked to submit a piece of work for assessment in order to confirm that they are able to work comfortably at postgraduate level, and demonstrate the requisite clinical and professional knowledge.





What do our students think?

Since 2010, over 8000 students have progressed their medical career by enrolling in one of our qualifications. We ourselves have learned a lot during this time and continually seek to improve the student learning experience. Here is what some of our previous students have said:

"I found the online learning very interesting. It enabled me to save money and time."

Dr Imad Eddin Rahamtalla, Doctor

"I strongly recommend Diploma MSc to all those busy physicians who are working in remote areas and wish to upgrade their knowledge."

Dr Junaid Zaffar, Diabetologist

"The learning was fun and enjoyable. The course was awesome and it increased my confidence."

Dr Sankar Nath Jha, Assistant Professor

"I found learning with Diploma MSc interesting, it helped to update my academic knowledge."

Dr Prasanth Kinattapurayil, Doctor

"I love that it was flexible and that I could log in at my convenience. I found this course to be very in-depth, informative, challenging and stimulating."

Kerri-Ann Best PGDip, RD



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