

# University of the West of Scotland

## Module Descriptor

**Session: 2023/24**

Last modified: Feb 24

Status: Proposal

**Title of Module: Ecology and control of emerging diseases**

<b>Code:</b>	<b>SCQF Level: 11</b> (Scottish Credit and Qualifications Framework)	<b>Credit Points: 20</b>	<b>ECTS: 10</b> (European Credit Transfer Scheme)
<b>School:</b>	School of Health and Life Sciences		
<b>Module Co-ordinator:</b>	William Gordon Mackay		

### Summary of Module

This module will provide students with the opportunity to gain critical analytical skills in the global issue of emerging infectious disease, in line with the UWS graduate attributes (<https://www.uws.ac.uk/current-students/your-graduate-attributes/>). Taking an international one health approach students will be actively involved in learning about what drives emerging infectious diseases, how we spot them, and how we respond. Students will focus on global threats including vector borne pathogens such as Plasmodium falciparum (Malaria) bacteria such as Vibrio cholerae (Cholera) and viruses such as Dengue virus (Dengue fever). It aims to provide underpinning international specialised knowledge of host-pathogen evolution and interactions, use of epidemiological modelling and policy considerations. Students will undertake three assessments as part of the module (2 summative and 1 formative). These will be (1) a case study on an emerging or re-emerging infectious disease (professional writing) (2) practical use of statistics in epidemiology, and, and (3) active participation in discussion fora (debate experience). Students will be taught using varied approaches including online lectures and tutorials, workshops and self-directed study sessions.

### Module Delivery Method

Face-To-Face	Blended	Fully Online	HybridC	HybridO	Work-based Learning
			✓		

#### Face-To-Face

Term used to describe the traditional classroom environment where the students and the lecturer meet synchronously in the same room for the whole provision.

#### Blended

A mode of delivery of a module or a programme that involves online and face-to-face delivery of learning, teaching and assessment activities, student support and feedback. A programme may be considered "blended" if it includes a combination of face-to-face, online and blended modules. If an online programme has any compulsory face-to-face and campus elements it must be described as blended with clearly articulated delivery information to manage student expectations

#### Fully Online

Instruction that is solely delivered by web-based or internet-based technologies. This term is used to describe the previously used terms distance learning and e learning.

#### HybridC

Online with mandatory face-to-face learning on Campus

#### HybridO

Online with optional face-to-face learning on Campus

#### Work-based Learning

Learning activities where the main location for the learning experience is in the workplace.

### Campus(es) for Module Delivery

The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit)

Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
			✓			

<b>Term(s) for Module Delivery</b>					
(Provided viable student numbers permit).					
Term 1	✓	Term 2		Term 3	

<b>Learning Outcomes: (maximum of 5 statements)</b>
On successful completion of this module the student will be able to:
L1. Investigate the principles of infectious diseases, their epidemiology and ecology using the current literature.
L2. Critically evaluate emerging and re-emerging infectious diseases.
L3. Apply the principles of epidemiology to different types of infection (bacterial, viral, parasitic).
L4. Critically evaluate epidemiological methods and how they have been used effectively to prevent and manage infections, and their limitations.

<b>Employability Skills and Personal Development Planning (PDP) Skills</b>	
<b>SCQF Headings</b>	During completion of this module, there will be an opportunity to achieve core skills in:
Knowledge and Understanding (K and U)	SCQF Level 11. Critical and integrated understanding of current scientific literature in global infection surveillance, prevention and control.
Practice: Applied Knowledge and Understanding	SCQF Level 11. Develop case study reports in global infectious disease epidemiology and ecology.
Generic Cognitive skills	SCQF Level 11. Critically reviewing current literature, relevant case studies in emerging and re-emerging infectious diseases and make judgements where information comes from a number of sources. Demonstrating a high degree of originality in dealing with professional level issues relating to the development of case studies.
Communication, ICT and Numeracy Skills	SCQF Level 11. Interpreting, using and evaluating a range of numerical and graphical data from infectious disease epidemiology Research. Presentation of scientific knowledge through case study writing, and participation in discussion fora.
Autonomy, Accountability and Working with others	SCQF Level 11. Designing a work profile, meeting deadlines for case studies and presentations.

<b>Pre-requisites:</b>	Before undertaking this module the student should have undertaken the following:	
	<b>Module Code:</b>	<b>Module Title:</b>
	<b>Other:</b>	
<b>Co-requisites</b>	<b>Module Code:</b>	<b>Module Title:</b>

\* Indicates that module descriptor is not published.

## Learning and Teaching

This module is a collaborative endeavour. It consists of blend lectures, aimed at setting the scene, tutorials and self-directed study, where students are responsible for the planning and implementation of the case study work (in consultation with staff members). Students will write their own case study using examples from the literature. Students will also participate in discussion fora focused on key concepts of emerging and re-emerging infectious diseases and undertake assessment on the use of statistics in infectious disease

<b>Learning Activities</b> During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	<b>Student Learning Hours</b> (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture/Core Content Delivery	15
Tutorial/Synchronous Support Activity	14
Laboratory/Practical Demonstration/Workshop	7
Independent Study	164
	200 Hours Total

## \*\*Indicative Resources: (eg. Core text, journals, internet access)

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Epidemiology. Gordis, Leon, 1934-Philadelphia, Pa. : Elsevier Saunders, 2004. 3rd ed.

Control of communicable diseases manual. Heymann, David L., Washington, DC : American Public Health Association, 2015. 20th ed.

Access to library; peer-reviewed journals, WHO, CDC and ECDC materials.

Internet access – for example the R for epidemiology community resource: <https://epirhandbook.com/en/>

(\*\*N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk\*) to wait until the start of session for confirmation of the most up-to-date material)

## Engagement Requirements

In line with the Academic Engagement Procedure, Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on the relevant learning platform, and complete assessments and submit these on time. Please refer to the Academic Engagement Procedure at the following link: [Academic engagement procedure](#)

## Supplemental Information

<b>Programme Board</b>	Biological Sciences and Health
<b>Assessment Results (Pass/Fail)</b>	No
<b>Subject Panel</b>	Biology L7-11
<b>Moderator</b>	TBD
<b>External Examiner</b>	TBD
<b>Accreditation Details</b>	
<b>Changes/Version Number</b>	1

<b>Assessment: (also refer to Assessment Outcomes Grids below)</b>
Case study assessment - 2500 words (60%)
Class test assessment (40%)
(N.B. (i) <b>Assessment Outcomes Grids</b> for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An <b>indicative schedule</b> listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Handbook.)

## Assessment Outcome Grids (Footnote A.)

<b>Component 1</b>						
<b>Assessment Type (Footnote B.)</b>	<b>Learning Outcome (1)</b>	<b>Learning Outcome (2)</b>	<b>Learning Outcome (3)</b>	<b>Learning Outcome (4)</b>	<b>Weighting (%) of Assessment Element</b>	<b>Timetabled Contact Hours</b>
Case study	✓	✓			60	0

<b>Component 2</b>						
<b>Assessment Type (Footnote B.)</b>	<b>Learning Outcome (1)</b>	<b>Learning Outcome (2)</b>	<b>Learning Outcome (3)</b>	<b>Learning Outcome (4)</b>	<b>Weighting (%) of Assessment Element</b>	<b>Timetabled Contact Hours</b>
Class test (written)			✓	✓	40	0
<b>Combined Total For All Components</b>					100%	0 hours

## Footnotes

A. Referred to within Assessment Section above

B. Identified in the Learning Outcome Section above

## Note(s):

1. More than one assessment method can be used to assess individual learning outcomes.
2. Schools are responsible for determining student contact hours. Please refer to University Policy on contact hours (extract contained within section 10 of the Module Descriptor guidance note).  
This will normally be variable across Schools, dependent on Programmes &/or Professional requirements.

## Equality and Diversity

In line with current legislation (Equality Act, 2010) and the UWS Equality, Diversity, and Human Rights Code, our modules are accessible and inclusive, with reasonable adjustment for different needs where appropriate. Module materials comply with the University guidance on inclusive learning and teaching, and specialist assistive equipment, support provision and adjustment to assessment practice will be made in accordance with UWS policy and regulations. Where modules require practical and/or laboratory-based learning or assessment required to meet accrediting body requirements the University will make reasonable adjustment such as adjustable height benches or assistance of a 'buddy' or helper. Please refer to the UWS Equality and Diversity Policy at uws.ac.uk: <http://www.uws.ac.uk/equality/> UWS Equality and Diversity Policy

### [UWS Equality and Diversity Policy](#)

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)