Module Descriptor

Title	Public Health Microbiology		
Session	2026/27	**Status**	Published
Code	BIOL10002	**SCQF Level**	10
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Health and Life Sciences**		
Module Co-ordinator	Roderick Williams		

Summary of Module

Proposed aims for module are:

Providing a historical overview of Public Health issues within the UK.

Critically analysing, evaluating epidemiological data and up to date methods used in the identification and management of outbreaks.

Reviewing and evaluating the role of public and government agencies in the development of the New Public Health, informing Public Health policies and reducing health inequalities.

Undertaking In depth study on the biology and management of outbreaks from food- and water-borne pathogens responsible for outbreaks in communities and hospitals in Scotland.

Critically analysing and developing skills through role play of the impact of public health policies and management in.

Analysing water treatment processes and protecting communities from water-borne outbreaks.

This module will work to develop a number of the key "I am UWS" Graduate Attributes to make those who complete the module, have Universal skills, that will make them Work Ready and Successful.

Module Delivery Method	**On-Campus[1]**	**Hybrid[2]**	**Online[3]**	**Work -Based Learning[4]**
	☒	☐	☐	☐

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

Campuses for Module Delivery	☐ Ayr ☐ Dumfries		☒ Lanarkshire ☐ London ☐ Paisley		☐ Online / Distance Learning ☐ Other (specify)	
Terms for Module Delivery	Term 1	☐	Term 2	☒	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Appraise of the role of global historic public health issues in shaping current Public health approaches, strategies, policies and legislation.
L2	Demonstrate knowledge of the role and function of agencies in the public health infrastructure responsible for formulating, evaluating, managing, and implementing public health policies and legislations.
L3	Demonstrate a critical understanding of the biology of food- and water-borne pathogens involved in outbreaks of infectious disease and hospital acquired infections in Scottish communities and hospitals respectively.
L4	Critically analyse the contribution of stressors such as social and economic in widening health inequalities.
L5	

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF 10** Demonstrate a critical understanding of the roles of microorganisms which cause food- and water-borne infections in natural and man-made environments.
Practice: Applied Knowledge and Understanding	**SCQF 10** Use the knowledge gained to solve outbreaks through role play and present their management plan in multiple formats e.g., case studies, press conference.
Generic Cognitive skills	**SCQF 10** Critically review knowledge, theories and techniques utilised in current programmes for prevention of food and water-borne infections in communities.
Communication, ICT and Numeracy Skills	**SCQF 10** Interpret and evaluate a wide range of data types.
Autonomy, Accountability and Working with Others	**SCQF 10** Exercise autonomy and initiative in sourcing and interpreting scientific research papers.

Prerequisites	Module Code	Module Title
	Other	
Co-requisites	Module Code	Module Title

Learning and Teaching
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours. The mode of delivery will be blended. Lectures will deliver fundamental information which will assist students to understand key concepts and terminologies in the management of outbreaks in natural and man-made environments. Students will be required to access lecture notes, links to reference sources, tutorials, and other support materials on the VLE. Practical sessions in this module will be a virtual group exercise. It is aimed to equip students with skills in the data handling, data analysis, the use of statistics to test hypothesis, and transfer the knowledge from research articles into the new context provided in the practical sessions to pinpoint the source and cause of outbreaks. Tutorials will be provided to support development of the skills required to complete the virtual exercise and report. There will be no written class tests in this module.

Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	30
Tutorial / Synchronous Support Activity	18
Independent Study	152
n/a	
n/a	
n/a	
TOTAL	200

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes: Principle of Public Health Microbiology, Robert S. Burlage. Jones & Bartlett Learning 2012. Seabert, D., McKenzie, J. F., & Pinger, R. R. (2022). Mckenzie's an introduction to community & public health. Tenth edition. Jones & Bartlett Learning. Online Resources https://www.publichealthscotland.scot/ https://www.food.gov.uk/ https://www.sepa.org.uk/ https://www.gov.uk/government/organisations/uk-health-security-agency

https://www.gov.uk/government/organisations/office-for-health-improvement-and-disparities
(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)

Attendance and Engagement Requirements
In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are attending and participating in all timetabled programme activities including on-campus and online teaching sessions, asynchronous online learning activities, placement, work-based elements, course-related learning resources, and complete assessments and submit these on time. **For the purposes of this module, academic engagement equates to the following:** Attendance at synchronous sessions (lectures, tutorials and practicals), completion of asynchronous activities, and submission of assessments to meet the learning outcomes of the module. Attendance at synchronous sessions is not required for students undertaking the distance learning version of the module.

Equality and Diversity
The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code. 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 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.
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Biological Sciences Health**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☐ **Yes** ☒ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Health
Moderator	Steven Kelly
External Examiner	M Brown
Accreditation Details	IBMS/ RSB/ REHIS
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**

Changes / Version Number	3

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Coursework 1 is comprised of three essays composed of 3 essays as follows: (a) Critical analysis and opinion essay (20%); (b) Theoretical and process essay (30%), and (c) Reflective assay (10%).This forms 60% of your final marks for the module
Assessment 2
Coursework 2 is a Skills development role play activity. This forms 40% of your final marks for the module.
Assessment 3
(N.B. (i) Assessment Outcomes Grids 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 indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Portfolio of written work	☒	☒	☒	☐	☐	60	3

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Clinical/ Fieldwork/ Practical skills assessment/ Debate/ Interview/ Viva voce/ Oral	☐	☒	☐	☒	☐	40	0

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	3 hours

Change Control

What	**When**	**Who**
Indicative resource List updated	July 2025	F Menzies

Moderator Change	February 2026	R Williams