



Module Specification

Epidemiology and Public Health

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Part 1: Information

Module title: Epidemiology and Public Health

Module code: USSJYW-15-3

Level: Level 6

For implementation from: 2023-24

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Epidemiology is the study of the distribution and determinants of diseases in populations. It is the key quantitative discipline that underpins public health, which is often defined as the organised efforts of society to prevent disease and to promote health.

Features: Not applicable

Educational aims: This module is a specialist module intended for those with an interest in public health, epidemiology, (communicable) infectious diseases and non-communicable diseases such as cancers and chronic respiratory diseases. This module seeks to prepare students for the practice of public health and related policy, using a variety of teaching and learning strategies.

Outline syllabus:

Key areas of the syllabus include:

Demonstrate systematic understanding of key epidemiological concepts relating to measures of disease frequency and measures of effect

Explain basic epidemiological concepts and their application, with an developing an awareness of the limitations of data, even for the best epidemiological data sets.

The role of epidemiology in the detection, identification and naming of a disease, and how that data is used to determine risk and identify and assess possible intervention strategies.

Describe the contribution of epidemiological surveillance programmes for the planning, implementation and evaluation of public health programmes.

Explain key concepts in communicable disease causation including the chain of infection and modes of transmission

Discuss emerging trends, challenges and opportunities in the control of communicable diseases

Demonstrate understanding of the interactions and effects of vaccines and vaccination programs on the epidemiology of vaccine preventable diseases.

Gain an understanding of ethical considerations in public health including issues such as privacy, autonomy, and genetic screening.

Demonstrate understanding of the epidemiological concepts relating to non-communicable diseases, including determinants and risk factors and how these relate to the public health management cycle.

The ability to critically read and evaluate relevant literature.

Part 3: Teaching and learning methods

Teaching and learning methods: Students are expected to spend 36 hours on scheduled learning and a further 114 hours on independent learning.

Scheduled learning will include lectures and tutorials. Each topic area will be introduced with underpinning lectures. Case studies will be used to provide the basis of tutorial sessions.

Independent learning includes hours engaged with essential reading, case study preparation, online activities, assignment preparation and completion; with an approximate indication of time required for each:

Essential reading to support acquisition of knowledge and completion of problem-solving tasks, case studies and online material related to lectures and tutorials (74 hours)

Preparation and completion of component B assignment (20 hours)

Exam revision and preparation (20 hours).

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Critically discuss the basic scientific concepts, methodological perspectives and factors that govern public health research

MO2 Apply epidemiological principles to the investigation and management of diseases in populations

MO3 Recognise contemporary determinants of health: emerging infectious diseases, genetics, environmental, physiological and behavioural factors, socio-economic conditions

MO4 Differentiate between key mechanisms of communicable disease transmission and describe/propose realistic public health prevention and control strategies

MO5 Evaluate the principles of surveillance and characteristics of different surveillance systems and their application to disease control

MO6 Evaluate a range of data to describe the health of the population, including familiarity with methods of measuring morbidity and mortality, the burden of disease and health status

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/5D724795-E25F-3FC3-706C-0371CCC3E50B.html?lang=en) via the following link <https://rl.talis.com/3/uwe/lists/5D724795-E25F-3FC3-706C-0371CCC3E50B.html?lang=en>

Part 4: Assessment

Assessment strategy: The assessment of this module is designed to test the breadth and depth of students' knowledge in addition to their ability to critically evaluate the subject based on the evidence provided in both the taught and independent learning areas.

Assessment 1 is an epidemiological data analysis question designed to enable

students to show that they can handle epidemiological data appropriately and interpret its meaning in a logical manner.

Assessment 2 is an online examination consisting of a mixture of unseen essay questions. This method of assessment allows students to present their knowledge and understanding of the subject and to demonstrate their ability to construct a structured evidence-based response to the questions. A choice of questions will be provided that encompass the module Learning Outcomes.

Formative feedback will be provided throughout the module using Q+A sessions and group discussions in lectures. Briefing and Q+A sessions will be given before the assessment 1 deadline, as well as specific exam revision and preparation sessions.

The topics covered by the options given for assessment 1 will vary each year to cover topical issues where possible (and to reduce possibility of copying previous students work). Exam questions each year will be complementary to the coursework questions to maintain coverage of the syllabus.

Assessment tasks:

Set Exercise (First Sit)

Description: Epidemiological Analysis Exercise (1500 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6

Examination (Online) (First Sit)

Description: Written Exam (online - 24 hour window)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3, MO4, MO5

Set Exercise (Resit)

Description: Epidemiological Analysis Exercise (1500 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6

Examination (Online) (Resit)

Description: Written Exam (online - 24 hour window)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3, MO4, MO5

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Biomedical Science [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Biomedical Science [Sep][FT][Frenchay][4yrs] MSci 2021-22

Applied Biomedical Science [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Biomedical Science [Sep][SW][Frenchay][5yrs] MSci 2020-21

Biomedical Science {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21

Biomedical Science [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Biomedical Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2020-21

Biomedical Science [Sep][PT][Frenchay][6yrs] BSc (Hons) 2019-20

Biomedical Science [Sep][PT][Frenchay][8yrs] MSci 2019-20

Biomedical Science {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2019-20

Biomedical Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2019-20

