University of the West of England
BRISTOL

ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data						
Module Title	Environmental Protection					
Module Code	UZVSL8-30-2		Level	2	Version	1.1
Owning Faculty	Health and Life Sciences		Field	Health and Social Sciences		
Contributes towards	FdSc Public and Environmental Health Cert HE Public and Environmental Studies					
UWE Credit Rating	30	ETCS Credit Rating	15	Module Type	Standard	
Pre-requisites	None		Co-requisites	None		
Excluded Combinations	None		Module Entry requirements			
Valid From	September 2012		Valid to	September 2018		

CAP Approval Date	20/11/2014

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to: • Interpret the meaning of 'Environmental Protection'; the various components which comprise the function and its relationship with the other elements of Public and Environmental Health. (Component A, element 1) • Examine sources physical, chemical and biological pollutants and evaluate their impacts on exposure pathways. (Component A, element 1 and Component B, element 1). • Compare acquired and predictive data, to understand implications on human health and the wider environment. (Component A, element 1 and Component B, element 1). • Undertake monitoring, measurement, sampling of pollutants

	and accurately record and predict the likely outcomes from the results. (Component B, element 2) • Illustrate the impacts of pollutants on human health, the effects on the environment and the implications and impacts of interventions. (Component A, element 1). In addition the educational experience may explore, develop, and practise <u>but not formally discretely assess</u> the following: • Group and collaborative work • Develop knowledge and expertise of research
Syllabus Outline	• Principles of Hearing and Sound Propagation. Examination of sources and impacts of Noise and their effects. Measurement of Sound and interpretation of results. Determination of health impacts of noise. Examination of methods of control and understanding and assessments of impacts. • History of Pollution Control leading to an outline of the current regulatory regime. • Nature, sources and types of Air Pollution – smoke, gaseous, particulates, dust odour. Methods of measurement and control. Effects on human health and the environment. • Sources of Water Pollution. Methods of sampling and interpretation of analytical results. Prevention and control of water pollution. Bathing and recreational water quality. Sustainable Urban Drainage systems. Potable water and private water supplies. • Nature, sources and remediation of Land Pollution. Consideration of the differing elements of the Contaminated Land Regime. Understanding and establishing source-receptor pathways and control measures. • Approaches to waste management. Importance of the Waste Management Hierarchy. Waste collection and treatment processes. Environmental and Public Health impacts of waste management. Organisation and management of waste operations.
Contact Hours/Scheduled Hours	• 300 hours in total • 102 hours scheduled learning Scheduled learning will typically include lectures, seminars, practical workshops and demonstrations, external visits and an interactive forum. All students are expected to attend a series of tutorials.
Teaching and Learning Methods	Introductory lectures are supported by seminars, case studies, visits and practical workshops. • 300 hours study time of which 102 hours will represent

	scheduled learning. Scheduled learning includes lectures, seminars, tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; external visits; work based learning; supervised time in studio/workshop. • Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion. Student study time will be organised each week with a series of both essential and further readings and preparation for practical workshops. It is suggested that preparation for lectures, practical workshops and seminars will take 4 hours per week with a further expectation of 24 hours preparation for Poster defence, 24 hours used in essay assignment planning and completion and 30 hours study in preparation for the written examination. • This module will be taught across both semesters on one day per week allowing both full and part time routes to be timetabled effectively.
Reading Strategy*	**Access and Skills** The development of literature searching skills is supported by a Library seminar provided within the first semester and by the Graduate Development Programme embedded in Study Skills and Tutorial entitlement. Additional support is available through the Library Plus Services and via Moodle web pages, including interactive tutorials on finding books and journals, evaluating information and referencing. In addition additional academic study skills support is available via the HE Drop-in sessions. All students will be encouraged to make use of the print and electronic resources available to them through membership of both the college and the university. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. Weston College Library's web pages provide access to subject relevant resources and to the library catalogue as well as signposting the University Library's web pages. Many resources can be accessed remotely. This guidance will be available in the programme handbook, module handbook and via module information on Moodle. **Essential reading:** Any essential reading will be indicated clearly, along with the method for accessing it. Students may be asked to purchase a set text, be given a print study pack or be referred to texts that are available electronically. **Further reading:** Students will be encouraged to read widely using the library catalogue, a variety of bibliographic and full text databases, and Internet resources. Many resources can be accessed remotely. The purpose of this is to ensure students are familiar with

	current research, classic works and material specific to their interests from the academic literature. All further reading resources will be available via both College and University libraries.
Indicative Reading List	Environmental Protection UK.(2010) **Pollution Control Handbook 2009**. **The Essential Guide to UK and European Pollution Control Legislation**. Brighton. Hill, M.K. (2010). **Understanding Environmental Pollution**, Cambridge University Press. Metcalfe, S. and Derwent, D. (2005). **Atmospheric Pollution and Environmental Change**, Arnold Publishers, Oxford University Press. Radojevic, M. and Bashkin, V.N. (1999). **Practical Environmental Analysis**. The Royal Society of Chemistry, Cambridge. Smith, B. J. Peters R.J (1996). **Acoustics and Noise Control** (2nd Ed) Longman. Bell, S. and MacGillivray, D. (2000). **Environmental Law**. Blackstone Press. Zakrzewski, S. F. (2002). **Environmental Toxicology**, 3rd Edition, Oxford University Press. Godish T**, Air Quality**, 3rd Edition, Lewis Publishers 1997 O' Neill P, **Environmental Chemistry**, Chapman &Hall Kiely, G. (1997). **Environmental Engineering**, McGraw-Hill. Tebbutt TH, **Principles of Water Quality Control**, 4th Edition, Pergamon 1998 <u>Recommended Journals:</u> Environmental Pollution The Science of the Total Environment The ENDS Report <u>Useful websites:</u> The UK National Air Quality Information Archive web page: The Atmospheric Research and Information Centre: The DEFRA Environmental protection page: The Environment Agency web page: <u>On-line Courses</u> http://www.geog.le.ac.uk/cti/

Part 3: Assessment	
Assessment Strategy	A range of assessment techniques will be employed to ensure that learners can meet the breadth of learning outcomes presented in this module alongside the ability to demonstrate transferable skills e.g. communication skills. Examination: A set of questions will be designed to allow students to apply first principles of their academic study to unseen scenarios. Essay: An extended piece of writing encouraging students to engage with both the essential and the further reading to justify an intervention within the field of environmental protection. Practical Assessment: Viva Voca of the monitoring of a pollutant(s) in the environment and a written report. Opportunities for formative assessment exist for each of the assessment strategies used. Verbal feedback is given and all students will engage with personalised tutorials setting SMART targets as part of the programme design.

Identify final assessment component and element	**Component A, element 1**	
% weighting between components A and B (Standard modules only)	**A:** **50%**	**B**: **50%**

First Sit	
Component A (controlled conditions) **Description of each element**	**Element weighting**
1. Examination (2 hours) FINAL ASSESSMENT	100%
Component B **Description of each element**	**Element weighting**
1. Essay (1500 words)	70%
2. Viva	30%

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) **Description of each element**	**Element weighting**

1. Examination (2 hours) FINAL ASSESSMENT	100%
Component B **Description of each element**	**Element weighting**
1. Essay (1500 words)	70%
2. Viva	30%
If a student is permitted an **EXCEPTIONAL RETAKE** of the module the assessment will be that indicated by the Module Description at the time that retake commences.	