MODULE SPECIFICATION

Part 1: Information			
Module Title	Managing Air Quality		
Module Code	UBGMT4-15-3	Level	Level 6
For implementation from	2018-19		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Geography and Environmental Management
Department	FET Dept of Geography & Envrnmental Mgmt		
Contributes towards			
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
Overview: According to the United Nations, air pollution is the single biggest environmental health risk, causing roughly 7 million deaths annually. Short-lived pollutants, such as those arising from the burning of diesel, coal, kerosene or biomass, are reported to be responsible for about one third of deaths from stroke, chronic respiratory disease and lung cancer and one quarter of deaths from heart attacks. Long-lived particles of dust, such as those carried over long distances by sand and dust storms, can also contribute to air pollution and can lead to premature death by cardiovascular and respiratory disease, lung cancer, eye and skin infections and acute lower respiratory infections. In addition to impacting on health, air pollution can contribute to global warming, and impact on such things as water and food supply. This module recognises the significance of these impacts and equips students with appropriate scientific knowledge to understand the nature and sources of air pollution.

Educational Aims: See Learning Outcomes.

Outline Syllabus: Students will be introduced to a distinction between both household and outdoor (ambient) forms of air pollution, with the module explaining how the latter is generated from emissions caused by power generation, transport, industrial activity, wildfires, agriculture, and dust and sand storms. Case studies from across the world will be used to show the nature of the challenge. The module will also allow students to engage with their local context to understand the type of pollution that is occurring in their own city or neighbourhood, and how this has changed with time. Students will be exposed to some of the policy and legislation that is being used to help tackle air pollution, with examples being drawn from a range of spatial scales (from the local to the international). Key drivers and ambitions will be critically reviewed, while the module will also seek to identify the necessary pre-conditions for the successful achievement of policy and legislation. Key stakeholders in the delivery of this activity will also be identified. The module will expose the methods and techniques for measuring and monitoring air pollution, and the type of responses that are being pursued to ensure air remains healthy now and into the future. As part of this, the module considers the role of technology in cleaning up polluted air, and how technological innovation is being used to help reduce emissions from a range of sources and sectors (such as from cars and planes). The inter-relationships between development and air quality will be revealed, with the module highlighting how the form of a development can impact on, or be influenced by, local air pollution.

Teaching and Learning Methods: Scheduled learning will comprise assessment and lectures. Lectures will provide a framework for understanding the reading and key issues covered by the module. Where possible, scheduled learning will be enhanced with guest lecturers and / or site visits to help identify how air quality can be measured and improved through appropriate management.

Independent learning will use directed reading via the online reading list and a selection of online resources, including appropriate case studies.

Part 3: Assessment

This module is assessed by a single component, Component A, that comprises an examination of 3-hours. This method of assessment has been chosen on the basis that it complements the other coursework focused modules of the year. An examination provides an opportunity for students to refine skills in argumentation and will allow them to synthesise, and apply, knowledge gained from across the module. Feedback on exam technique will be provided in advance of the assessment and will allow for a reinforcement of guidance provided at level two. Mock questions will be provided in advance of the examination and will be used as a formative assessment tool. The resit examination will take a similar format.

First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Examination - Component A	✓	100 %	Examination (3 hours)
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Examination - Component A	✓	100 %	Examination (3 hours)

Part 4: Teaching and Learning Methods

Learning Outcomes

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

	Module Learning Outcomes
MO1	Differentiate between the different sources and effects of selected air pollutants and critically evaluate how these have changed over the last century
MO2	Provide examples, and offer critical reflection, on the use of policy and legislation for the purposes of managing air quality
MO3	Demonstrate a critical understanding of methods of air quality assessment
MO4	Critically evaluate how development and city management can either increase, or reduce, emissions and ambient concentrations of pollutants
MO5	Critically discuss the history of the development of emission controls on motor vehicles and assess likely future scenarios for abatement technologies

Contact Hours

Contact Hours	
Independent Study Hours:	
Independent study/self-guided study	114
Total Independent Study Hours:	114
Scheduled Learning and Teaching Hours:	
Face-to-face learning	36
Total Scheduled Learning and Teaching Hours:	36
Hours to be allocated	150
Allocated Hours	150

Reading List

The reading list for this module can be accessed via the following link:

https://uwe.rl.talis.com/index.html