



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Air Quality Management		
Module Code	UBGMW7-15-M	Level	Level 7
For implementation from	2020-21		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Geography and Environmental Management
Department	FET Dept of Geography & Environmental Mgmt		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Overview:</b> This module covers an introduction to the air quality management from UK and European perspectives, focusing on pollutants of concern, their sources and health effects, ways of monitoring and modelling air pollution and the implications of air quality assessment in development management as well as mitigation strategies through Air Quality Action Planning.</p> <p><b>Features:</b> Module Entry Requirements: Standard entry requirements if taken as credit-bearing standalone module. CPD only (i.e. without assessment) is not credit bearing so no entry requirements necessary.</p> <p><b>Educational Aims:</b> The educational aims of the module are to provide a holistic approach to air quality management, that introduce core concepts and breadth of understanding, underpinned with the latest research, to contextualise topics on assessment methods (monitoring and modelling) and policy and management (air quality considerations in planning, development of air quality action plans). The theoretical knowledge is embedded through technical practicals (using for example Excel, ADMS-Roads) and non-technical practicals (reviewing air quality assessments, role playing action plan steering groups). The knowledge, arguments and practical skills developed studying this module would prepare students to work as, or with, air quality officers in local or national government, or to undertake air quality consultancy.</p>

## STUDENT AND ACADEMIC SERVICES

**Outline Syllabus:** Topics include:

Air Quality Management  
 Air Quality Monitoring  
 Air Quality Dispersion Modelling  
 Air Quality and Development Management  
 Air Quality Action Planning

**Teaching and Learning Methods:** The module will be run by members of the Air Quality Management Resource Centre, a worldclass research group in the faculty, ensuring students benefit from first-hand experience and cutting-edge material. As the module is intended to be shared with CPD delivery, the academic students will also benefit from the exchange of real-world experience with professional delegates and the potential to initiate professional networks in the field. Within the Institution of Environmental Sciences professional accreditation, students may also be eligible for membership of the Institute of Air Quality Management, further increasing the professional opportunities available to them.

Delivery of those sessions shared with CPD delegates will be 5 full days over the course of a week, comprising 27.5 hours teaching. This will deliver the bulk of the content, with a further 10 hours delivered as 2-hour sessions over 5 weeks to enable students to revisit each of the subjects covered and prepare for assessment.

Teaching and learning methods will comprise of a combination of seminars, in-class discussions, IT practicals (using Excel and ADMS Roads dispersion modelling software), and group work practicals, including role-play).

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion. These sessions constitute an average time per level as indicated in the table below. Scheduled sessions may vary slightly depending on the module choices you make.

**Nominal study hours:**

Directed contact learning (seminar/tutorials): 37.5 hours  
 Independent learning: 75 hours  
 Assessment (including preparation): 37.5 hours  
 Total: 150 hours

### Part 3: Assessment

The assessment will comprise of two components (2-hour exam and 2,500 word case study evaluation) in order to accommodate a range of learning styles.

The examination component, which will be performed under controlled conditions, and will include a number of short and structured questions, to cover the learning objectives that are not assessed in component 2.

Component 2 will be a case study evaluation, enabling the student some freedom over their choice of case study. The assessment will test the student's skills of critical evaluation as well as their knowledge of local government air quality responsibilities, and will also enable them to contextualise the real-world application of their learning together with the challenges that that entails.

The assessment intrinsically embeds UWE's principles of Sustainable Development within the subject matter.

First Sit Components	Final Assessment	Element weighting	Description
Examination - Component A	✓	50 %	Exam
Case Study - Component B		50 %	Case study evaluation

## STUDENT AND ACADEMIC SERVICES

Resit Components	Final Assessment	Element weighting	Description
Examination - Component A	✓	50 %	Exam
Case Study - Component B		50 %	Case study evaluation

Part 4: Teaching and Learning Methods																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th>Module Learning Outcomes</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Differentiate between the different sources and effects of selected air pollutants in the UK and critically evaluate how these have changed over the last century</td> <td>MO1</td> </tr> <tr> <td>Critically review the key approaches adopted by European and UK legislation for air pollution</td> <td>MO2</td> </tr> <tr> <td>Critically evaluate the effectiveness and limitations of the UK Local Air Quality Management (LAQM) framework for improving local air quality</td> <td>MO3</td> </tr> <tr> <td>Demonstrate a critical understanding of methods of air quality assessment</td> <td>MO4</td> </tr> <tr> <td>Determine the impactful relationship between development and air quality and critically evaluate how development control and planning can be used to reduce emissions and ambient concentrations of pollutant</td> <td>MO5</td> </tr> <tr> <td>Critically discuss measures to reduce air pollution, including the development of emission controls on motor vehicles, and assess likely future scenarios for air quality abatement</td> <td>MO6</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Differentiate between the different sources and effects of selected air pollutants in the UK and critically evaluate how these have changed over the last century	MO1	Critically review the key approaches adopted by European and UK legislation for air pollution	MO2	Critically evaluate the effectiveness and limitations of the UK Local Air Quality Management (LAQM) framework for improving local air quality	MO3	Demonstrate a critical understanding of methods of air quality assessment	MO4	Determine the impactful relationship between development and air quality and critically evaluate how development control and planning can be used to reduce emissions and ambient concentrations of pollutant	MO5	Critically discuss measures to reduce air pollution, including the development of emission controls on motor vehicles, and assess likely future scenarios for air quality abatement	MO6		
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Reading List	<p>The reading list for this module can be accessed via the following link:</p> <p><a href="https://uwe.rl.talis.com/modules/ubgmw7-15-m.html">https://uwe.rl.talis.com/modules/ubgmw7-15-m.html</a></p>																

<b>Part 5: Contributes Towards</b>
This module contributes towards the following programmes of study: