



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Environmental Forensics		
Module Code	USSKCD-15-3	Level	3
For implementation from	September 2018		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Health and Applied Sciences	Field	Applied Sciences
Department	Department of Applied Sciences		
Contributes towards	BSc Forensic Science; MSci Forensic Science; BSc Forensic Science (with Foundation Year); MSci Forensic Science (with Foundation Year); BSc Environmental Science; MSci Environmental Science; BSc Environmental Science (with Foundation Year); MSci Environmental Science (with Foundation Year); BSc Integrated Wildlife Conservation; BSc Biological Sciences; MSci Biological Sciences; BSc Biological Sciences (with Foundation Year); MSci Biological Sciences (with Foundation Year).		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Environmental Forensics is an extremely broad topic and this module aims to give students knowledge across several themes.</p> <p>The theoretical underpinning of the module is delivered through interactive lectures and workshops with additional resources made available electronically.</p> <p>It is expected that students will spend a significant proportion of the study time for this module engaging with relevant scientific literature, as directed by academic staff. Preparation for the coursework assessments will require significant research into relevant case studies and the ability to critically evaluate realistic forensic casework data.</p> <p><b>Students will study:</b></p> <p><b>Environmental Toxicology</b></p>

The approaches used to monitor and assess environmental contamination and the implications this has for ecotoxicology. The environmental fate and impact of contaminants, particularly with regard to industrial chemicals, drugs, xenoestrogens and particulate matter.

The physical, chemical and biological processes that influence their environmental cycling and natural absorption, retention, degradation and toxicity.

### **The Use of Isotopes in Environmental Investigations and Nuclear Forensics**

Natural and artificial formation of radionuclides. The use of stable and radiogenic isotopes in tracing and dating pollution events. Radiation release case studies. The use of isotopes in geographical provenancing of plant derived drugs, foods, human remains, animal derivatives and monitoring the release of fuels, explosives and nuclear materials.

### **Forensic Archaeology**

Detection of clandestine burials using geophysical and non-geophysical techniques. Excavation of single and mass burials to include examination and analysis of the grave fill. Analysis of human remains to establish ante and peri-mortem activity.

### **Wildlife Crime**

An overview of the scale and nature of wildlife crime to include examples of both national and international wildlife crimes.

## **Part 3: Assessment: Strategy and Details**

The module can be selected by students from a diverse range of programmes and must contain enough of interest and relevance for each. Topics for the coursework element will be selected by the student from a range to reflect this broad spectrum of interest. It is expected that students will spend a significant proportion of the study time for this module engaging with relevant scientific literature, as directed by academic staff. Preparation for the coursework assessments will require significant research into relevant case studies and original critical evaluation of realistic forensic casework data. Feedback on the coursework assessment will feed forward to the examination.

**Coursework: A 1500 word essay**

**Examination: 2 hours**

Identify final timetabled piece of assessment (component and element)	Component A	
% weighting between components A and B (Standard modules only)	A:	B:
	60	40
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. 2 hour examination	100	
Component B Description of each element	Element weighting (as % of component)	
1. 1500 word essay	100	
Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. 2 hour examination	100	
Component B Description of each element	Element weighting (as % of component)	
1. 1500 word essay	100	



## FOR OFFICE USE ONLY

First CAP Approval Date	28/03/2014			
Revision ASQC Approval Date	17 Jan 2018	Version	4	<a href="#">RIA 12498</a>