**MODULE DESCRIPTION FORM** 



## DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

# **CL960** Fundamentals of Environmental Forensics

Module Registrar: Christopher Gallacher	Taught To (Course): MSc	Taught To (Course): MSc					
Other Lecturers Involved:	Credit Weighting: 10	Credit Weighting: 10 Semester: 1/2/3					
Assumed Prerequisites:	Optional/ elective class	Academic Level: 5	Suitable for Exchange: Y				

## Module Format and Delivery (HOURS i.e. 1 credit = 10hrs of study):

Lecture	Tutorial	Laboratory	Groupwork	External	Online	Project	Assignments	Private Study	Total
20							40	40	100

## **Educational Aim**

This module aims to provide the student with an understanding of:

- An understanding of Environmental Forensics as a Discipline
- An understanding of a range of contaminants found in the Environment, and their Fate and Transport
- Approach and analytical techniques to determine the responsible parties for contamination found in the environment

Real-world applications of Environmental Forensics

## Learning Outcomes

On completion of the module the student is expected to be able to

LO1 demonstrate an understanding of the use of environmental science data within a legal framework including interpretation of real world application of Environmental Forensics

LO2 demonstrate an understanding of the methods for collecting environmental data and how the process of collecting data is managed within a Legal Environmental Forensics framework.

## Syllabus

The module will teach the following:

Lectures on the Legal Framework that shapes Environmental Forensics Lectures on scientific and environmental investigation techniques used in Environmental Forensics Review of real case studies that have been determined using Environmental Forensics

## Assessment of Learning Outcomes

## Criteria

For each of the Module Learning Outcomes the following criteria will be used to make judgements on student learning:

For each of the Class Learning Outcomes the following criteria will be used to make judgements on student learning:

LO1 and LO2 will be assessed through evaluation of the coursework assignment and through informative assessment in class discussion periods

LO1 and LO2 will also be assessed formally through an examination

The standards set for each criterion per Module Learning Outcome to achieve a pass grade are indicated on the assessment sheet for all assessment.

## **Principles of Assessment and Feedback**

(within Assessment and Feedback Policy at: https://www.strath.ac.uk/staff/policies/academic/)

Informative assessment through feedback on coursework submission and group discussions will provide the students with the ability to gauge their learning against the expected outcomes.

Feedback in group discussions will be immediate and for the coursework, feedback will be provided within 3 weeks of submission of the project.

## Assessment Method(s) Including Percentage Breakdown and Duration of Exams

		Examin	ations		Course	eworks	Weekly Quizzes	
	Number	Month(s)	Duration	Weighting	Number	Weighting	Number	Weighting
	1	End of Sem	2.5	50%	2	40%	10	10%
			hour					
L/Outcomes	LO1 LO2				LO1 LO2		LO1 LO2	

Indicate which learning outcomes (LO1, LO2 etc) are to be assessed by exam/coursework/project as required.

#### Coursework / Submissions deadlines (*academic weeks*): Assignment 1 – Week 5 Assignment 2 – Week 11

# Resit Assessment Procedures:

2.5 hr examination in August diet / Resubmission of coursework(s) prior to commencement of the August exam diet.

## PLEASE NOTE:

Students must gain a summative mark of 50% to pass the module. Students who fail the module at the first attempt will be re-examined during the August diet. This re-examination will consist entirely of exam / coursework.

## **Recommended Reading**

All text books and reading materials required for the module are available on MyPlace

## Additional Student Feedback

(Please specify details of when additional feedback will be provided)

Date	Time	Room No		

Session: 2021/2022
Approved:
Course Director Signature:
Date of Last Modifications: 20/07/21

# ASSESSMENT TIMETABLE

Module Code CL960 Module Title Fundamentals of Environmental Forensics

Indicate in the tables below the Hand-Out (H), Submission (S) and Feedback (F) week number for each assignment (lab report/coursework/project etc) and the timing of each Exam (E), Class Test (CT) or Quiz (Q)

## Semester

Assessment type & title	LOs	Weight (%)	Individual or Group	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WK9	WK10	WK11	Exam Period
Weekly Quizzes	LO1 LO2	10%	Individual	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10		
Assignment 1	LO1 LO2	10%	Individual	Н				S			F				
Assignment 2	LO1 LO2	20%	Individual	Н										S	F
Class Exam	LO1 LO2	50%	Individual											Н	SF

## Appendix

# Mapping Module Learning Outcomes to AHEP

Assessment Title	Engineering Council AHEP competencies
LO1	Science and mathematics + Economic, legal, social, ethical and environmental context
LO2	Science and mathematics + Economic, legal, social, ethical and environmental context

## Programme Threads

	Assessment Title									
Thread	Primary	Secondary	Contributory							
Design										
Health, Safety & Risk Assessment Sustainability	X	x								
Professionalism, Ethics, Diversity and Inclusion		<b>A</b>								
Application of Maths to solve engineering problems										
Industrial Engagement & Site Visits										
Digital Technologies										