Module Definition Form (MDF)

Module code: MOD008791	**Version:** 1 **Date Amended:** 22/Mar/2022

1. Module Title
Forensic Biology

2a. Module Leader
Pet-Paul Wepeba

2b. School
School of Life Sciences

2c. Faculty
Faculty of Science and Engineering

3a. Level
5

3b. Module Type
Standard (fine graded)

4a. Credits
15

4b. Study Hours
150

5. Restrictions

Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	None		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

In this module you will go more in-depth into the alternative lines of biological evidence that can be present at scenes, considering biological evidence in a holistic manner. As forensic scenes are often a complex mixture of different types of evidence, you will gain an appreciation for the different specialisms that can be involved in the analysis of biological material.

We will start off by looking at the different types of microorganisms, and the relevant techniques to identify these and at how plant and insects collected from a crime science can assist with an investigation. We shall also discuss aspects of wildlife crime and the associated forensic processes, and legislation for the protection of wildlife (CITES: Convention on International Trade in Endangered Species).

We shall then look at the anatomy and physiology of the human body in some detail, and the different ways in which samples from bodies are processed and the information that can be obtained.

The contribution of different specialists to understanding different types of biological evidence will be emphasised throughout the module. These include (but are not limited to): molecular biologists; pathologists; histologists; anthropologists; odontologists; haematologists; fluid specialists.

You will gain confidence in a range of laboratory techniques, including microbiology, molecular biology, microscopy and histology; fluid analysis You will also gain experience in data handling which are often necessary to make sense of these lines of evidence. Throughout, reference to real case studies will be made, demonstrating a direct link with your learning and real forensic applications.

6b. Outline Content

Microbiology – analysis of bacteria and other microorganisms

Human anatomy and physiology

Forensic entomology

Introduction to botany

ntroduction to wildlife forensics; CITES

6c. Key Texts/Literature

The reading list to support this module is available at: https://readinglists.aru.ac.uk/

6d. Specialist Learning Resources

None

7. Learning Outcomes (threshold standards)		
No.	**Type**	**On successful completion of this module the student will be expected to be able to:**
1	Knowledge and Understanding	Explain the role of different specialists in the gathering, examination and presentation of biological evidence.
2	Intellectual, practical, affective and transferrable skills	Carry out a range of laboratory techniques used by different specialists and discuss their advantages and limitations
3	Intellectual, practical, affective and transferrable skills	Critically evaluate the application of different laboratory techniques to building a biological profile
4	Intellectual, practical, affective and transferrable skills	Generate, analyse and present biological data to support a hypothesis

8a. Module Occurrence to which this MDF Refers				
Year	**Occurrence**	**Period**	**Location**	**Mode of Delivery**
2026/7	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	**Hours**	**Learning Outcomes**	**Details of Duration, frequency and other comments**
Lectures	13	1	1 x 3 hrs + 10 x 1 hr lectures/active learning
Other teacher managed learning	23	2-4	5 x 2 hrs tutorials + 5 x 2 hrs practical sessions + 2 hrs revision + 1 hr test
Student managed learning	114	1-4	Background reading, online activities, preparation for lectures and practicals, and completion of assessments
TOTAL:	150		

9. Assessment for the above Module Occurrence

The assessment for some modules includes a presentation (see below for details on how this particular module is assessed). We recognise that presenting, especially to a large group, can cause significant anxiety or distress for some students. If this may affect you, please contact your Module Leader or the Disability and Neurodiversity Service as early as possible. We will work with you to consider appropriate reasonable adjustments. Depending on your individual needs, these might include, for example, presenting to a smaller group or presenting only to a member of academic staff.

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	2-4	60 (%)	Fine Grade	30 (%)
Practical assessment (1000 words) and lab report (1000 words)					

Assessment components for Element 010

Component No.	Assessment Title	Submission Method	Weighting (%)	Components needed for Mark Calculation?
010/1	Practical assessment (1000 words)	Scheduled Activity: Timetabled assessment task	50 (%)	All
010/2	Lab report (1000 words)	Canvas	50 (%)	

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Practical	1-4	40 (%)	Fine Grade	30 (%)
Test (1000 words equivalent)					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:
(a) achieve the qualifying mark for each element of fine graded assessment as specified above
(b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]