

MODULE DESCRIPTOR

Module Title

Forensic Biology

Reference	AS2011	Version	5
Created	June 2017	SCQF Level	SCQF 8
Approved	June 2002	SCQF Points	15
Amended	September 2017	ECTS Points	7.5

Aims of Module

To provide students with the knowledge and skills to carry out and evaluate laboratory work involving forensic biology techniques.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Explain the theoretical basis underlying forensic tests used in the examination of a range of biological materials.
- 2 Appreciate practical applications of forensic biology tests.
- 3 Interpret example bloodstain patterns in a scientific manner.
- 4 Demonstrate knowledge of the recovery of biological evidence.

Indicative Module Content

Theory underlying modern forensic examination techniques used to analyse evidential information. The scientific basis for tests for body samples (blood, semen, faeces, saliva and squamous epithelia) in terms of their biological properties, persistence and the techniques that can be used to extract relevant biological information from them. Practical application of a range of biological forensic tests. Assessment of significance of evidence. Presentation of evidence. Bloodstain Pattern Interpretation. Physical Properties of Blood Mechanisms of Spatter Formation. Steps to determine the origin of a spatter pattern. Insect life cycles. Entomological evidence in forensic cases. Pollen, spores, algae and plant materials as evidence.

Module Delivery

This is a lecture based module supplemented by tutorials and practical laboratory classes.

Indicative Student Workload	Full Time	Part Time
Contact Hours	36	N/A
Non-Contact Hours	114	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Examination	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	Closed book written examination.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

This module is assessed using the one component of assessment as detailed in the Assessment Plan. To pass this module, candidates must achieve a Module Grade D or better.

Module Grade	Minimum Requirements to achieve Module Grade:
A	Final mark of 70% or greater in C1
B	Final mark of between 60-69% in C1
C	Final mark of between 50-59% in C1
D	Final mark of between 40-49% in C1
E	MARGINAL FAIL. Final mark of between 35-39% in C1
F	FAIL. Final mark of less than 35% in C1
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	Successful completion of Stage 1 Forensic and Analytical Sciences or equivalent.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

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|---|---|
| 1 | JAMES, S.H., KISH, P.E. and SUTTON, T.P., <i>Principles of Bloodstain Pattern Analysis: Theory and Analysis</i> . Current Edition. CRC Press. |
| 2 | JAMES, S.H. and NORDBY, J.J., <i>Forensic Science: An Introduction to Scientific and Investigative Techniques</i> . Current Edition. CRC Press |
| 3 | REED,R.H., HOLMES,D., WEYERS,J., JONES,A., <i>Practical Skills in Biomolecular Sciences</i> . Current Edition. Pearson Education Ltd. |
| 4 | WONDER, A.Y., <i>Bloodstain Pattern Evidence: Objective Approaches and Case Applications</i> . Current Edition. Academic Press. |
| 5 | LANGFORD, A., DEAN, J.R., REED, R., HOLMES, D., WEYERS, J. and JONES, A., <i>Practical Skills in Forensic Science</i> . Current Edition. Pearson Education Ltd. |