Module Title **Forensic Examination & Analysis** **Keywords** Microscopy, Laboratory Work, Questioned Documents .	Reference AS2063 SCQF Level SCQF 8 SCQF Points 30 ECTS Points 15 Created June 2002 Approved September 2004 Amended May 2011 Version No. 2

This Version is No Longer Current

The latest version of this module is available here

Prerequisites for Module

A student taking this module should have completed introductory practical exercises (Modules AS1006 and AS1903) or equivalent.

Corequisite Modules

None.

Precluded Modules

None.

Aims of Module

To enable students to develop practical, analytical and communication skills in forensic analysis and forensic imaging. To provide the principles and practice of techniques used by forensic analysts and document examiners.

Handwriting and signatures; construction of characters, natural variation, accidental and deliberate modification. Origin and history of documents: inks, paper, impressions, erasures and obliteration. Analysis of documents using a range of techniques e.g. ESDA, chromatography, microscopy, spectroscopy. Video Spectral Comparator, comparison microscope.

The development of communication skills and attitudes appropriate to an experimental scientist is an important element of the course.

Indicative Student Workload

Contact Hours	Full Time
Laboratory Work	65
Lectures	20
Directed Study	
Directed Study	40

Learning Outcomes for Module

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

1. Understand the principles of use and operation of selected analytical and imaging instruments.
2. Interpret fully and record accurately the results of experimental procedures of forensic analysis, forensic imaging and document examination.
3. Explain the methods of construction of characters used in all instances of handwriting and identify both natural and deliberate modifications made to handwriting.
4. Explain and apply the basic principles of microscopy.

Indicative Module Content

This is a largely practical based module which is subdivided into a number of different types of activity: consolidation of basic laboratory skills, development of advanced laboratory skills via a series of core and extended experiments. Within each type of activity the exercises are designed to develop practical

Private Study
Private Study 175

Mode of Delivery

This is a lecture and laboratory based course supplemented with tutorial sessions and case study workshops.

Assessment Plan

	Learning Outcomes Assessed
Component 1	1,3
Component 2	2
Component 3	4

Component 1: Skills test

Component 3: Class test

Component 2: Formal laboratory report

Indicative Bibliography

1. LANGFORD, A.M., DEAN J., REED R., HOLMES D.A., WEYERS J., and JONES A. *Practical Skills in Forensic Science.* Current Edition. Prentice Hall.

designed to develop practical, analytical and problem solving skills. Students undertake a range of prescribed experiments using spectroscopic and chromatographic techniques applied to forensic samples. Students will undertake a number of prescribed experiments using different microscopes to analyse a range of forensic samples including fibres, footprints, fingerprints, bullets and documents.

2. WHITE, P.C., *Crime Scene to Court, The Essentials of Forensic Science*. Current Edition. The Royal Society of Chemistry.
3. JACKSON A.R.W., JACKSON J.M., MOUNTAIN H., and BREARLEY D. *Forensic Science.* Current Edition. Pearson.
4. BELL S. and MORRIS K. *An Introduction to Microscopy.* Current Edition. CRC Press Taylor & Francis Group.
5. AUCHIE, D., 2014. Evidence. 4th ed. Edinburgh: W. Green. (Law Basics series)
6. CHRISTIE, S., 2009. An introduction to Scots criminal law.. 2nd ed. Dundee: Dundee University Press.
7. WHITE, R., WILLOCK, I., and MACQUEEN, H., 2013. The Scottish legal system. 5th ed. Hayward Heath: Bloomsbury Professional.