

## MODULE DESCRIPTOR

### Module Title

Practical Analytical Science

Reference	PL2602	Version	1
Created	April 2023	SCQF Level	SCQF 8
Approved	September 2004	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

### Aims of Module

To enable students to develop practical, analytical skills in forensic analytical science.

### Learning Outcomes for Module

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

- 1 Undertake analytical science experiments, utilising and operating selected analytical instruments with a forensic purpose.
- 2 Acquire accurate results from experimental procedures used in analytical science and fully record data and observations.
- 3 Analyse and interpret results and report findings in a written formal report.

### Indicative Module Content

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, analytical and problem solving skills. Students undertake a range of prescribed experiments using spectroscopic, electrochemical and chromatographic techniques applied to forensic samples.

### Module Delivery

This is a laboratory based module supplemented with tutorial/workshop sessions.

### 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
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

**ASSESSMENT PLAN**

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

**Component 1**

Type: Coursework Weighting: 100% Outcomes Assessed: 1, 2, 3  
 Description: Laboratory Report

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

Component 1 (Laboratory Report) comprises 100%. A minimum of a Grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	A
<b>B</b>	B
<b>C</b>	C
<b>D</b>	D
<b>E</b>	E
<b>F</b>	F
<b>NS</b>	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 Science or equivalent.
Corequisites for module	None.
Precluded Modules	None.

**INDICATIVE BIBLIOGRAPHY**

- 1 SKOOG, D.A., HOLLER, F.J. AND CROUCH, S.R. *Principles of Instrumental Analysis* . Current Edition. Thomson Brooks/Cole.
- 2 PRICHARD, F.E. *Quality Assurance in Analytical Chemistry* . Current Edition. Chemistry Laboratory. Wiley.
- 3 MONK, P.M. *Fundamentals of Electroanalytical Chemistry* . Current Edition. Wiley